TEAC®

SERVICE MANUAL

C-3

Stereo Cassette Deck

CONTENTS

PART 1 SERVICE MANUAL

1 Parts location 2
2 Case and front panel removal 3
3 Mechanical adjustments and checks. 4
4 Electrical adjustments and checks. 7
5 Block diagram 11
6 Level diagram 12
7 Lublication and voltage conversion 13
8 Specifications and service data 14

PART 2 PARTS LIST

1 Exploded views and parts list section. 16
2 P.C. board section. 24

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1 PARTS LOCATION

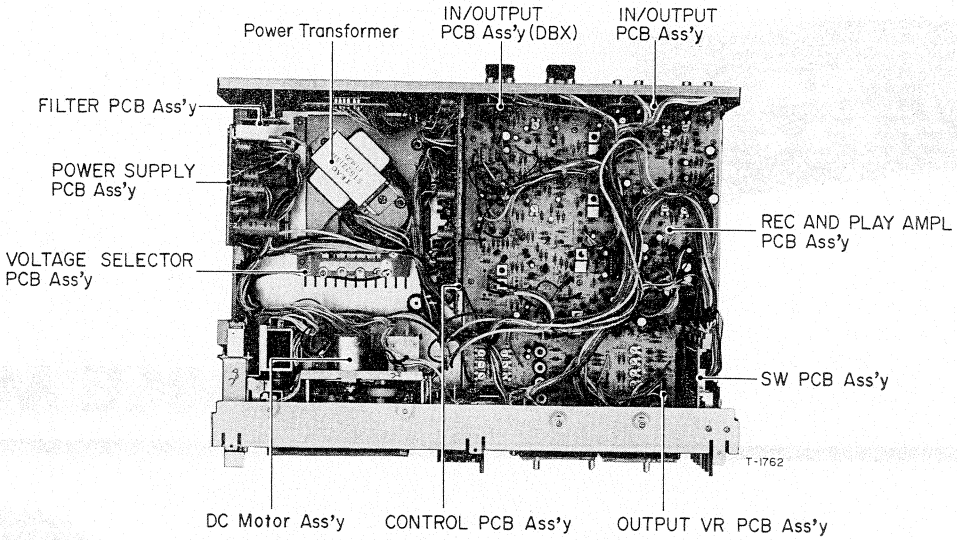


Fig. 1-1

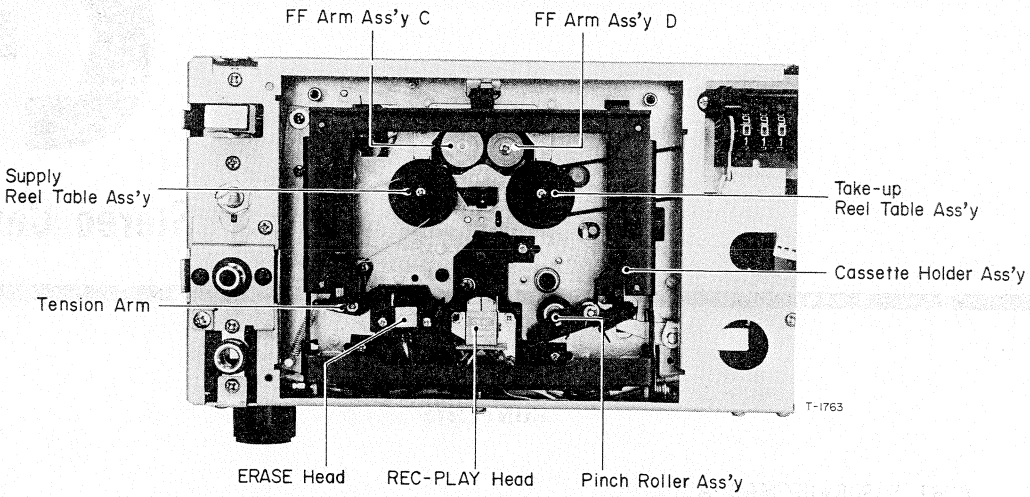


Fig. 1-2

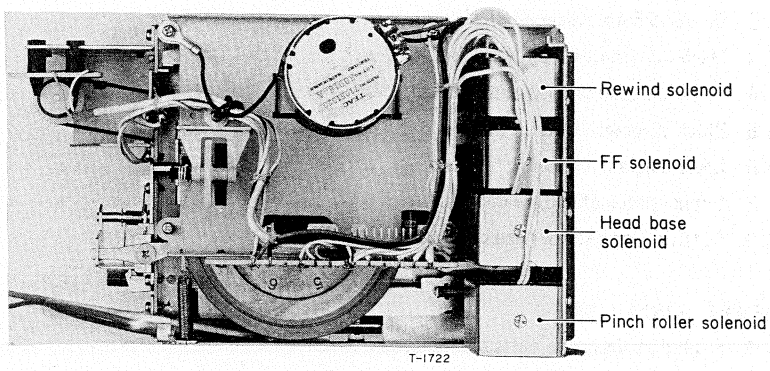


Fig. 1-3 Rear View of Transport Chassis

Noise reduction circuit made under license from Dolby Laboratories. The word "Dolby" and the Double-D symbol are trademarks of Dolby Laboratories.

2 CASE AND FRONT PANEL REMOVAL

Disassemble in number-order

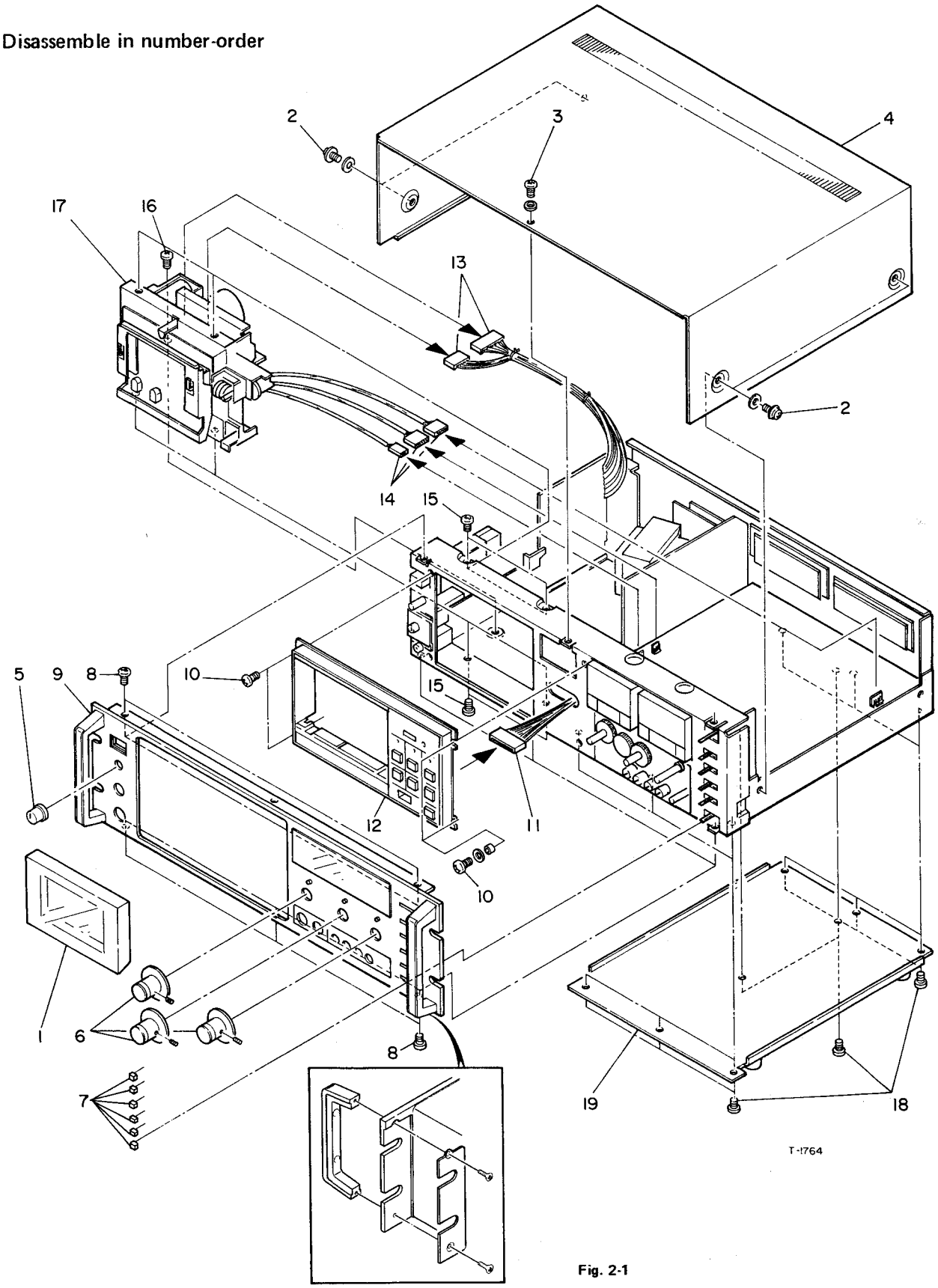


Fig. 2-1

3 MECHANICAL ADJUSTMENTS AND CHECKS

3-1 TEST EQUIPMENT

NOTE: When ordering special tapes indicated by*, allow for the longer delivery time that is required for them.

1. Spring scale: For pinch roller pressure check, 0 to 500 g (17.6 oz)
2. Wow/flutter meter: MEGRO DENPA SOKKI K.K., Model MK-668A, or D & R Co., Model FL-4B
3. Frequency counter: Digital type, capable of 10 Hz to 100 kHz indication
4. Cleaner: TEAC TZ-261 tape recorder cleaner kit or pure alcohol
5. Test tape*: TEAC MTT-111 (for tape speed and wow/flutter test, 3,000 Hz is recorded)
6. Cassette torque meter*: For take-up and supply torque checks, 0 to 100g.cm (0 to 1.4 oz. inch)
   For fast forward and rewind torque checks,0 to 160g.cm (0 to 2.2 oz.inch)
7. Mirror-equipped tape path test tape*: MTT-901; C-60, 30m
   MTT-902; C-90, 45m

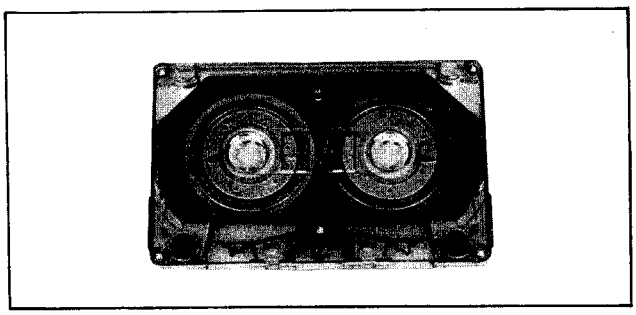


Fig. 3-1 Cassette Torque Meter

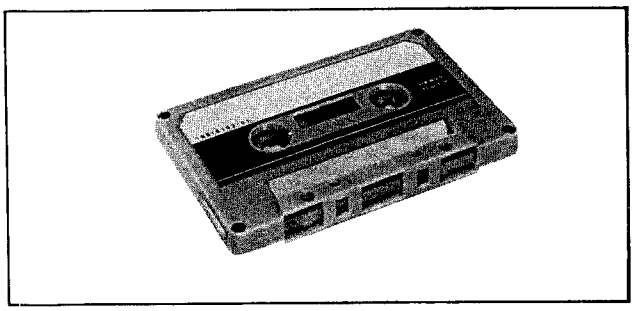


Fig. 3-2 Mirror-equipped Tape Path Test Tape

3-2 REEL TORQUE

Specifications:

Take-up:	40 to 60 g.cm (0.6 to 0.8 oz-inch)
Supply:	3 to 6 g.cm (0.04 to 0.08 oz-inch)
Fast Forward:	80 to 150 g.cm (1.1 to 2.1 oz-inch)
Rewind:	100 to 150 g.cm (1.4 to 2.1 oz-inch)

1. Load the cassette torque meter on the deck and read the pointer indication on the dial scale for each tape movement operation.

3-3 PINCH ROLLER PRESSURE

1. Place the deck in the PLAY mode with no tape loaded.
2. Attach the spring scale to the hole in the pinch roller ass'y as shown.
3. Draw the pinch roller away from the capstan shaft until the capstan shaft and the pinch roller are separated.
4. Return the scale back until the pinch roller just begins to rotate.
   Specification: 350 g to 450 g (12.3 oz. to 15.9 oz.)

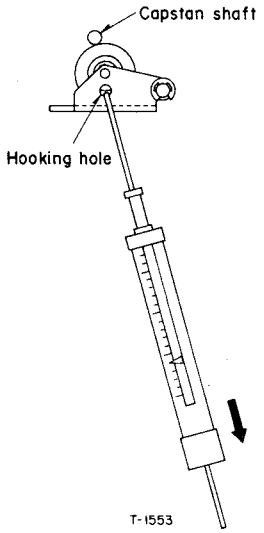


Fig. 3-3

3-4 HEAD BASE PLATE POSITIONNING

1. Set the deck in the PLAY mode.
2. Push the Head Base Plate in the direction of the arrow by hand to check whether there is any clearance between the Head Base Plate and the stopper portion of the mechanism chassis.
3. If there is any clearance, loosen the two screws on the head base plate solenoid and position the solenoid so that there is no clearance.

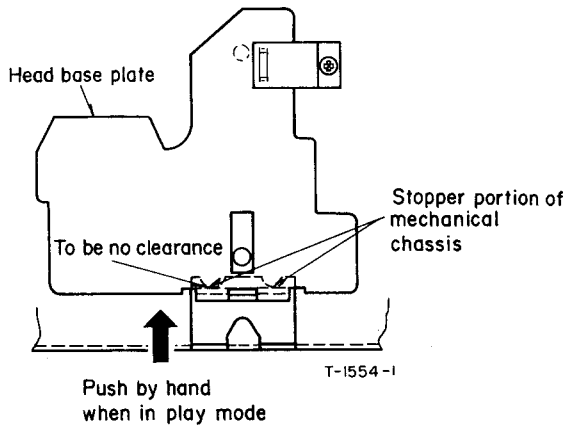


Fig. 3-4

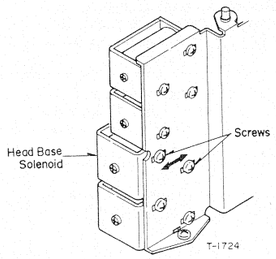


Fig. 3-5

3-5 CAPSTAN ASSEMBLY THRUST

1. Adjust the thrust adjusting screw so that thrust of the capstan shaft is limited to spec.
   Specification: 0.05 mm to 0.15 mm

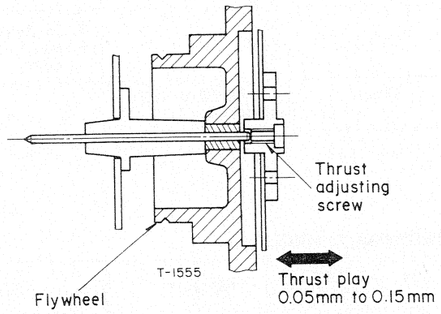


Fig. 3-6

3-6 TAPE SPEED

1. Set the OUTPUT control to obtain a convenient output.
2. Set the EQ switch to NORMAL, load and play a TEAC MTT-111 test tape.
3. Using a common slotted screwdriver with a handle completely insulated from the screwdriver blade, adjust the control on the motor for a reading of 3,000 ±5 Hz.
4. Check the followings at the begining and the end of the tape.
   Specifications:
   Tape speed deviation . . . .3,000 Hz ±45 Hz
   Tape speed drift. . . . . .45 Hz
5. If the tape speed is out of spec., check the pinch roller pressure and the tape driving function for correctness, and make sure the tape path is clean.

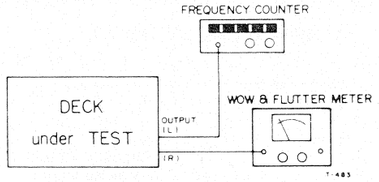


Fig. 3-7 Connection

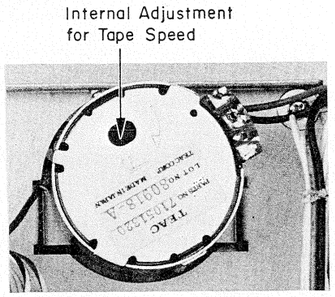


Fig. 3-8 Tape Speed Adjustment Location

3-7 MICRO SWITCH (A) ASSEMBLY CLEARANCE

1. Insert a blank cassette and close the cassette holder.
2. Loosen the two screws on the micro switch (A).
3. Move the switch so that actuator of the switch will contact the safety lever.
4. Adjust the switch position to get a clearance as shown.
5. Fasten the two screws.

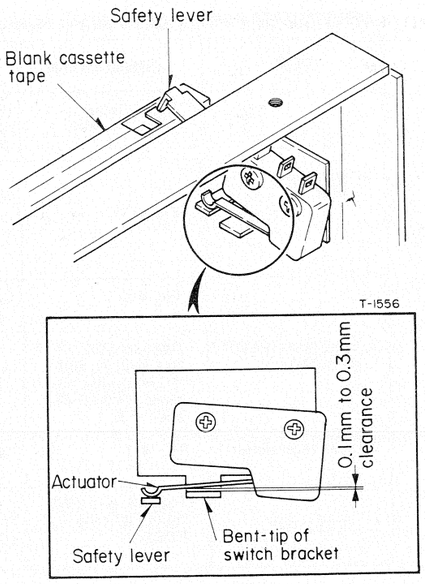


Fig. 3-9

3-8 MICRO SWITCH (B) ASSEMBLY CLEARANCE

1. Push the EJECT button to open the cassette holder.
2. Loosen the two screws on the micro switch (B).
3. Move the switch so that actuator of the switch contacts the bent-projecting portion of the eject lever.
4. Adjust the switch position to get a clearance as shown.
5. Fasten the two screws.

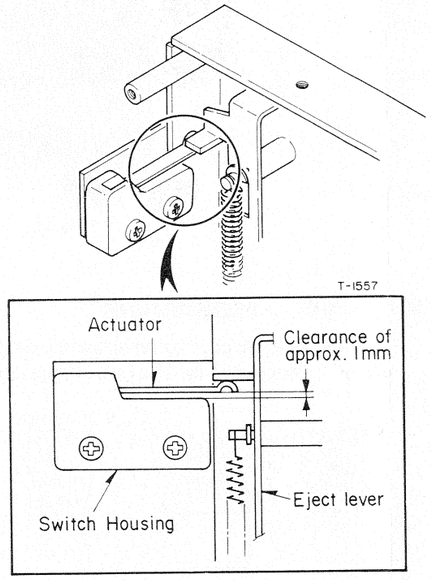


Fig. 3-10

4 ELECTRICAL ADJUSTMENTS AND CHECKS

4-1 GENERAL NOTICE

1. Before performing adjustments and checks, clean and demagnetize the entire tape path.
2. Make sure the deck is properly set for the voltage in your locality.
3. In general, adjustments and checks are done in the order of L-ch then R-ch. Double REF. Nos. indicate L-ch/R-ch. (Example: VR101/VR201)
4. The value of "dB" refers to 0 dB (0.775 V). If an AC voltmeter calibrated to 0 dB (1 V) is to be used, appropriate compensation should be made.
5. The AC voltmeter used in the procedures must have an input impedance of 1 M-ohms or more.

4-2 TEST EQUIPMENT

NOTE: When ordering test tapes, allow for the longer delivery time required for them.

1. TEAC test tapes
   MTT-150: For Dolby level calibration
   MTT-316: For playback frequency response check for EQ, METAL, Co (CrO_2)
   MTT-216: For playback response check for EQ, NORMAL
   MTT-506 or similar: For record test with BIAS/EQ, Co (CrO_2)
   MTT-501 or similar: For record test with BIAS/EQ, NORMAL
   METAL tape: For record test with BIAS/EQ, METAL
2. AF oscillator: 10 Hz to 100 kHz
3. AC voltmeter: 0.1 mV to 300 V
4. DC voltmeter
5. Attenuator: General purpose
6. Distortion analyzer: Basic frequency 400 Hz/1 kHz
7. Oscilloscope: General purpose
8. Band-pass filter: 1 kHz narrow band-pass type
9. Test load resistor: Non inductive type 8 ohm/1 W
10. Plastic alignment tool
11. Head demagnetizer: TEAC E-3 or equivalent
12. Cleaner: TEAC TZ-261 or pure alcohol
13. Bulk tape eraser: TEAC E-2 or equivalent

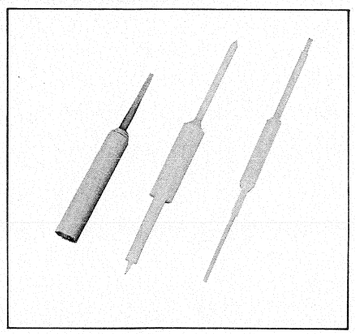


Fig. 4-1 Plastic Alignment Tools

4-3 D.C. VOLTAGE ADJUSTMENT

1. Adjust R815 on POWER SUPPLY PCB for +23 V DC at terminal 13 of the PCB to ground.

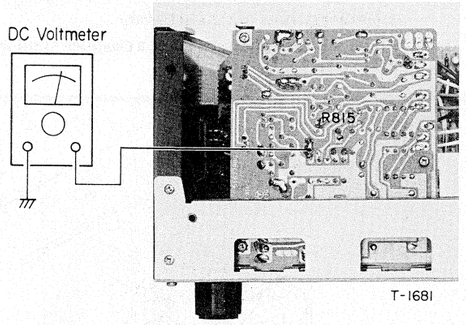


Fig. 4-2

4-4 PREPARATIONS

1. Make the basic test set-up and the switch setting. Unless showed otherwise in the procedures, 1 kHz filter should be bypassed.

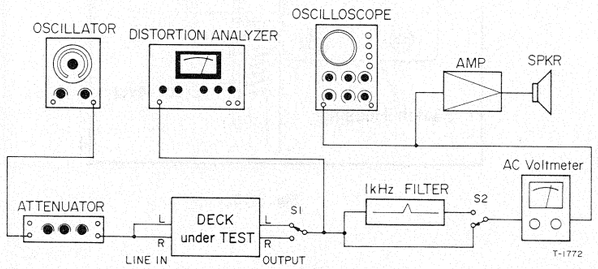


Fig. 4-3 Basic test setup

Switch	Position
MONITOR	TAPE
DOLBY NR	OUT
INPUT	LINE
MEMORY	OFF
EQ	Co (CrO_2)
BIAS	Co (CrO_2)
TIMER	OUT
CAL*	PRE-SET

*CAL switch: BIAS/REC CALIBRATION ADJUST/PRE-SET

4-5 PROCEDURE

PLAYBACK PERFORMANCE

ITEM	CONNECTION	INPUT	ADJUST (or CHECK)	OUTPUT	REMARKS
1. R/P head azimuth	Fig. 4-6	MTT-316 tape, 12.5 kHz section	Azimuth adj. nut of head (Fig. 4-8)	Phase: approx. 0° on oscilloscope (Fig. 4-7) Max. output on AC voltmeter	
2. Phase shift	Fig. 4-6	MTT-316 tape, 315 Hz & 12.5 kHz	Check	Phase: 45° (315 Hz) 90° (12.5 kHz)	
3. Specified output level	Connect AC voltmeter between TP1(TP2) and TP E	MTT-150 tape	R12/R22	580 mV (−2.5 dB)	
	Fig. 4-3, AC voltmeter to OUTPUT (L)		OUTPUT cont.	−5 dB (436mV)	● Specified level
	", AC voltmeter to OUTPUT (R)		R23	−5 dB	
	", AC voltmeter to OUTPUT (both ch.)		OUTPUT cont. to Max.	−3 dB ±2 dB (436 mV to 690 mV)	● Max. level **IMPORTANT: After ending, return OUTPUT cont. to spec. level position. Do not move this for all later process.**
4. Peak level meter	Fig. 4-3	MTT-150 tape	R14/R24	0 dB on meter	
5. Frequency response	Fig. 4-3	MTT-316 tape, 40 Hz to 14 kHz section	R11/R21	Reference 315 Hz: 40 Hz: +2, −2 dB 6.3 kHz: +2, −2 dB 14 kHz: +2, −2.5 dB	● Adjust R11/R21 for 315 Hz and 10 kHz to be the same level.
6. Signal to noise ratio	Fig. 4-3	MTT-501 tape	Check	48 dB (min.)	● Set EQ sw. to NORMAL. ● Ratio of spec. −5 dB and noise.
7. Headphone output level	Fig. 4-9	MTT-150 tape	Check	−18 dB ±3 dB (69.0 mV to 138 mV)	

MONITOR PERFORMANCE (In the record-pause mode with MONITOR sw. to SOURCE)

ITEM	CONNECTION	INPUT	ADJUST (or CHECK)	OUTPUT	REMARKS
1. Min. input level	Fig. 4-3, but LINE IN→MIC	Test tone, 400 Hz/ -67 dB ±3 dB (245 μV to 489 μV)	RECORD cont. to Max.	−5 dB (436 mV)	● For MIC check ● Set INPUT sw. to MIC/DIN
	Fig. 4-3	Test tone, 400 Hz/ −19 dB ±2 dB (69 mV to 109 mV)	RECORD cont. to Max.	−5 dB	● For LINE IN check **NOTE: To prevent mis-measurements, any connection cords except those for each input check must be removed.**
2. Specified RECORD cont. setting	Fig. 4-3	Test tone, 400 Hz/ −9 dB (275 mV)	RECORD cont.	−5 dB (436 mV)	**IMPORTANT: After this, do not move RECORD cont. for all later process.**
	Connect OSC→ATT to LINE IN, and AC voltmeter between TP5 (TP6) and TP E	Test tone, 400 Hz/ −9 dB	Check	−2.5 dB±0.5 dB (548 mV to 615 mV)	
3. Peak level meter	Fig. 4-3	Test tone, 400 Hz/ −9 dB	Check	0 dB±1 dB on meter	
4. "TEST IN"	Fig. 4-3, but LINE IN (L) & (R)→ TEST IN	Test tone, 400 Hz/ −29 dB (27.5 mV)	Check	−25 dB±1 dB (38.8 mV to 48.9 mV) 0 dB±2 dB on peak level meter	● Set INPUT sw. to TEST.

RECORDING PERFORMANCE

ITEM	CONNECTION	INPUT	ADJUST (or CHECK)	OUTPUT	REMARKS
1. Bias trap	Connect AC voltmeter between TP3 (TP4) and TP E	No signal recording	L305/L405	Min. reading	● Set in REC-PAUSE mode.
2. Record bias	Fig. 4-3	Test tone, 400 Hz and 10 kHz in turn/–42 dB	R33/R43 R34/R44 R35/R45	Fig.4-10	Co (CrO_2) METAL NORMAL
3. Record level	Fig. 4-3	Test tone, 400 Hz/ –12 dB (195 mV)	R31/R41 . . R32/R42 . . Check	–8 dB (308 mV) –8 dB ±1.5 dB (259 mV to 367 mV)	....Co (CrO_2) ....NORMAL .....METAL
4. Distortion	Fig. 4-3	Test tone, 400 Hz/ –12 dB (195 mV)	Check	2.0 % or less	● Check w/3 EQ/BIAS modes
5. Frequency response	Fig. 4-3	Test tone required w/spec./–42 dB (6.15 mV)	L303/L403 For Co (CrO_2) L304/L404 for NORMAL	Reference 400 Hz: 31.5 Hz: +2, –4 dB 63 Hz: +2, –2 dB 10 kHz: +2, –2 dB.... +2, –3 dB.... 16 kHz: +2, –4 dB.... 18 kHz: +2, –6 dB....	 .... For NORMAL, Co (CrO_2) .... For METAL .... For NORMAL .... For Co (CrO_2), METAL
6. Signal to noise ratio	Fig. 4-3	Test tone, 1 kHz/ –9 dB (275 mV) then No signal recording	Check	48 dB (min.)..... 45 dB (min.).....	● Ratio of 1 kHz portion and no signal portion .... Co (CrO_2) and METAL .....NORMAL
7. Erase efficiency	Fig. 4-3, switch on 1 kHz filter	Test tone, 1 kHz/ +1 dB (0.869 V) then No signal recording	Check	65 dB (min.)	● Co (CrO_2) only ● Record 1 kHz. Rewind tape to mid point of recorded portion. Do no signal recording. Get difference between 1 kHz portion and its erased portion.
8. REC MUTE function	Fig. 4-3, switch on 1 kHz filter	Test tone, 1 kHz/ +1 dB (0.869 V) then No signal recording	Check	65 dB (min.)	● Co (CrO_2) only ● Record 1 kHz. Then push REC MUTE button for several sec. Rewind and play tape. Get difference between 1 kHz portion and the created no signal portion.
9. Channel separation	Fig. 4-3, connect OSC→ATT to LINE IN (L) only, switch on 1 kHz filter	Test tone, 1 kHz/ –9 dB (275 mV)	Check	35 dB (min.)	● Co (CrO_2) only ● Find differences between 1 kHz recorded portion (L-ch) and no signal recorded portion (R-ch).
10. Adjacent track crosstalk	Fig. 4-3, connect OSC→ATT to LINE IN (R) only, and AC voltmeter to OUTPUT (R) only	Test tone, 125 Hz/ –9 dB (275 mV)	Check	40 dB (min.)	● Co (CrO_2) only ● Record 125 Hz on R-ch. Note output level of its recorded portion. Invert tape and play R-ch track. Check leakage level against the output ref. of previously recorded portion.
11. Dolby NR effect	Fig. 4-3	Test tone: 1 kHz/ –29 dB (27.5 mV), 10 kHz/–39 dB (8.69 mV)	Check	Variation from ref. At 1 kHz: 3 dB to 8 dB At 10 kHz: 8 dB to 12 dB	● Co (CrO_2) only ● Record 1 kHz w/DOLBY NR sw. to OUT. Play its portion w/DOLBY NR, OUT and IN. Get the output level difference between OUT and IN. ● Repeat the above process for 10 kHz.

4-6 ADJUSTMENT AND TEST POINT LOCATIONS

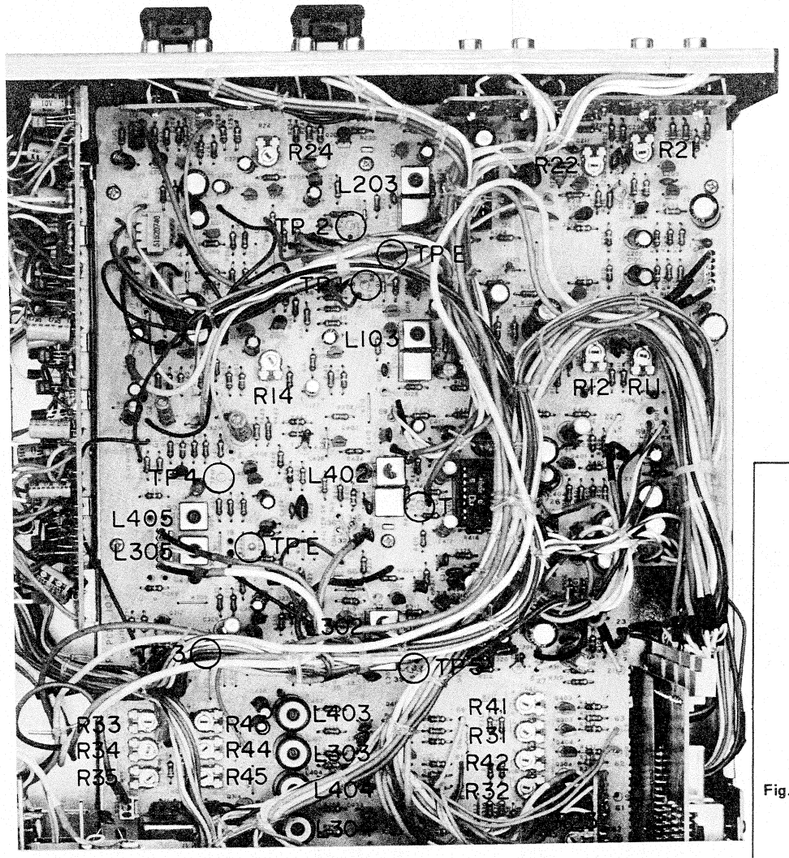
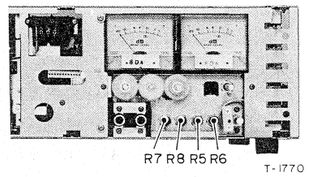


Fig. 4-4



R7, R8, R5 and R6 are user adjustable as described in the Owner's Manual.

Fig. 4-5

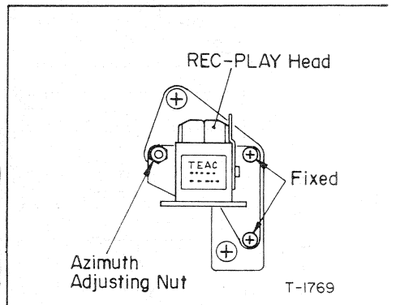


Fig. 4-8 Head Height/Azimuth Adj. Location

4-7 FIGURES

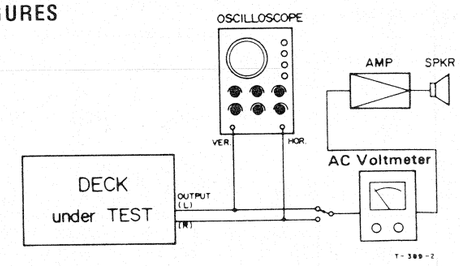


Fig. 4-6 Connection

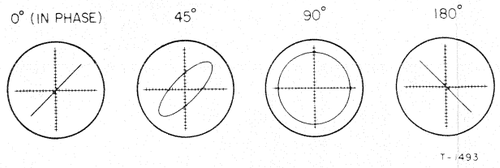


Fig. 4-7 Confirming Phase Relationship

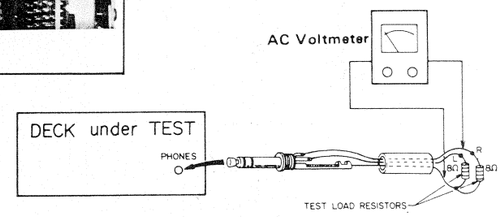


Fig. 4-9 Connection

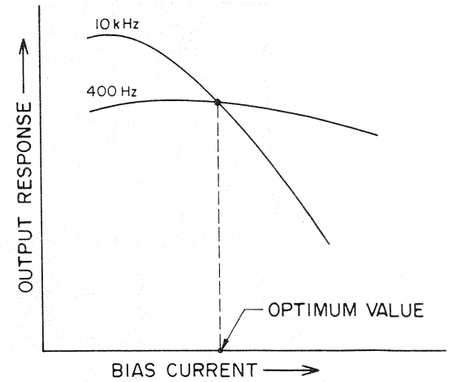
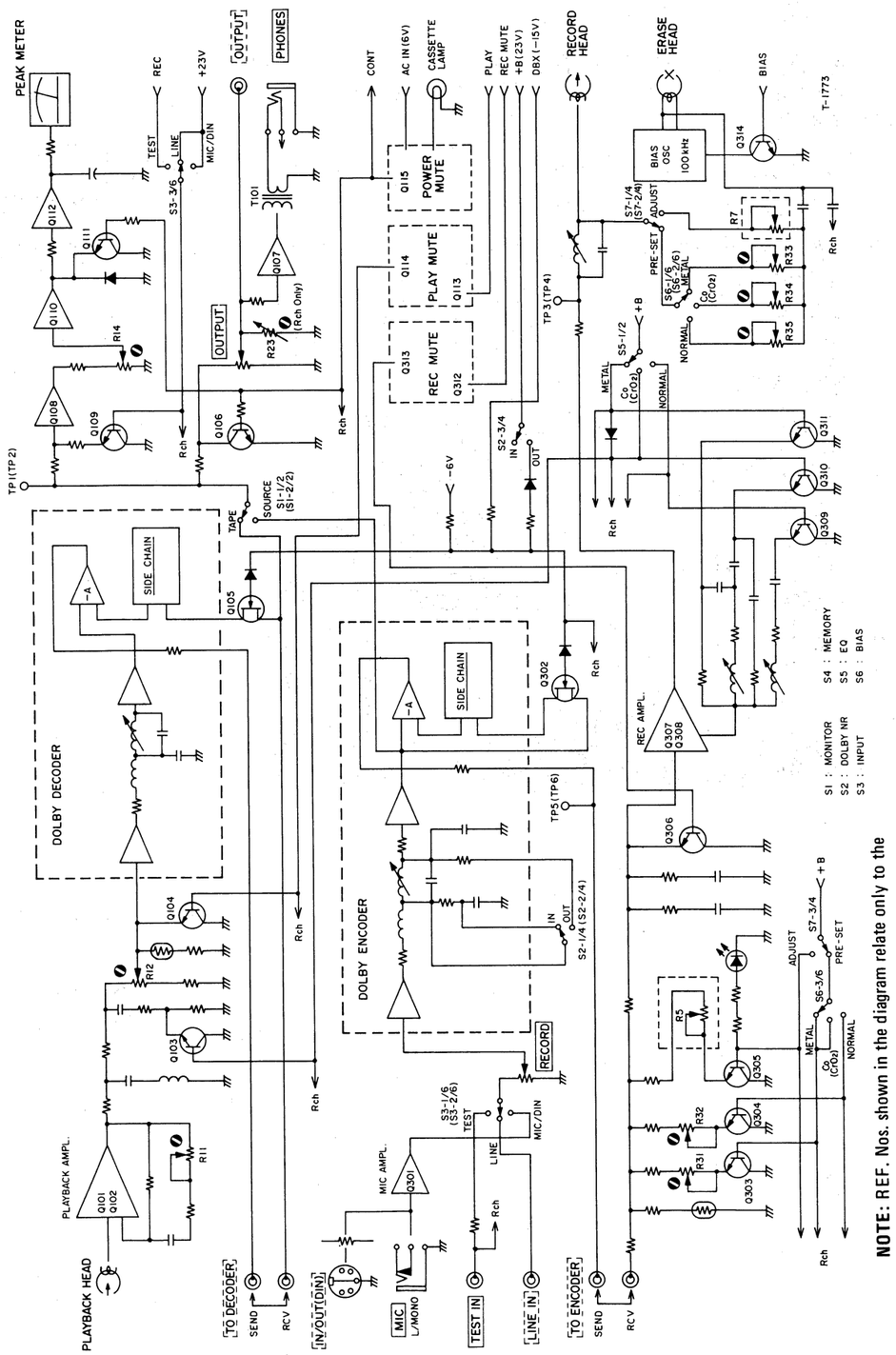


Fig. 4-10 Bias Adjustment

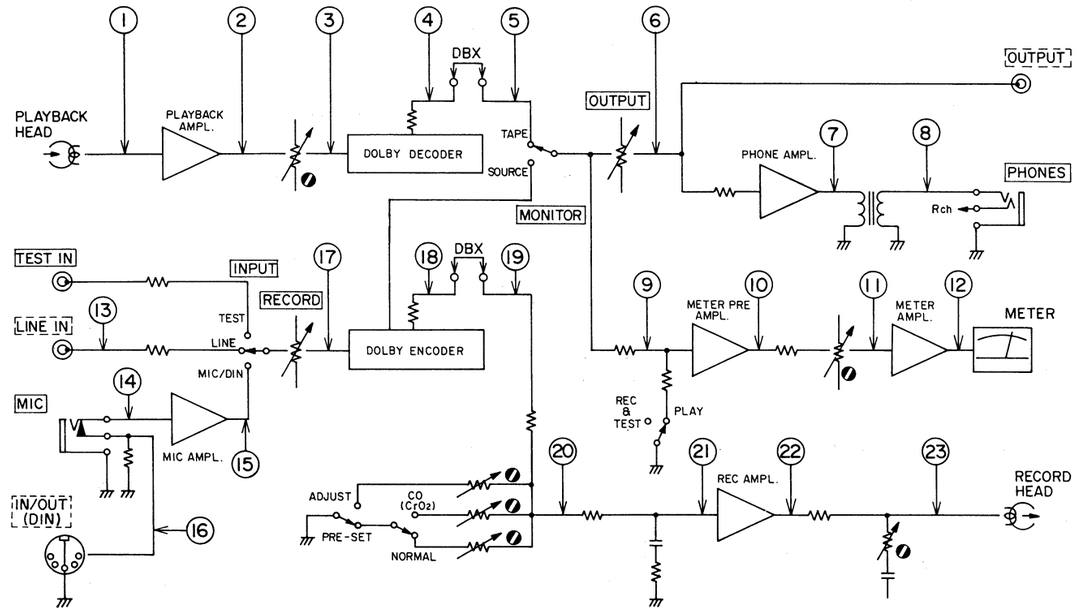
5 BLOCK DIAGRAM



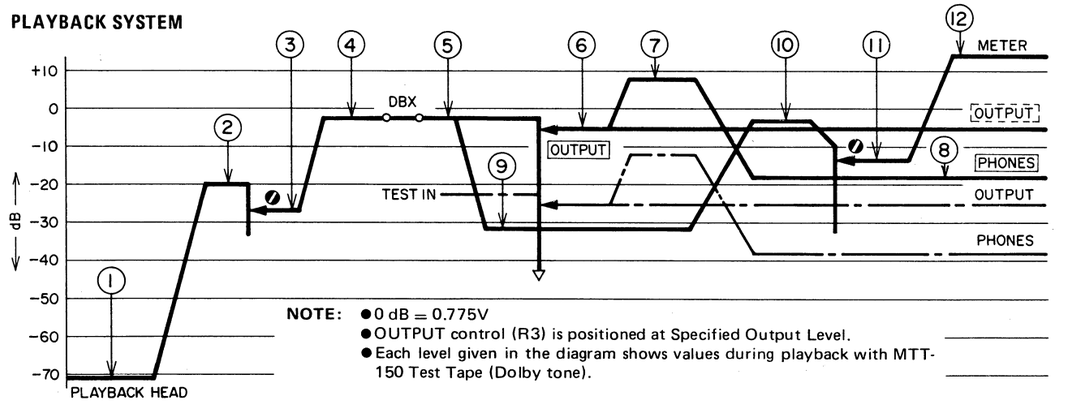
NOTE: REF. Nos. shown in the diagram relate only to the left channel.

Fig. 5-1

6 LEVEL DIAGRAM

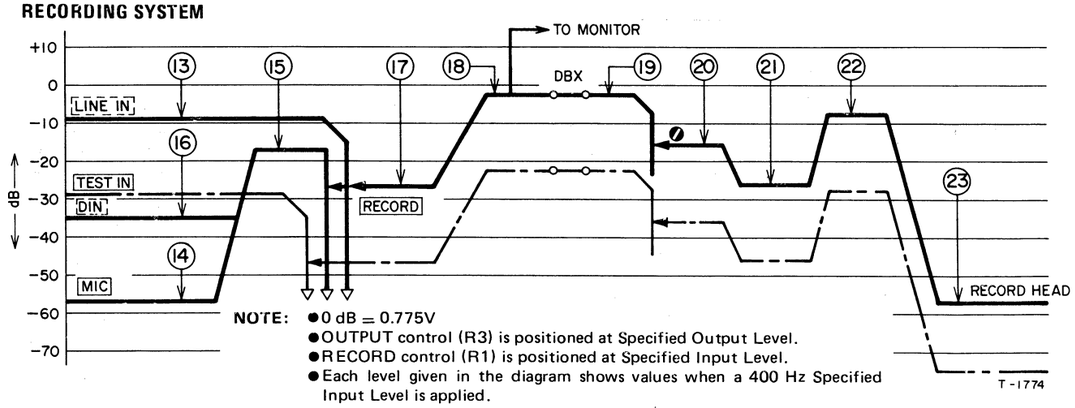


PLAYBACK SYSTEM



NOTE:
- 0 dB = 0.775V
- OUTPUT control (R3) is positioned at Specified Output Level.
- Each level given in the diagram shows values during playback with MTT-150 Test Tape (Dolby tone).

RECORDING SYSTEM



NOTE:
- 0 dB = 0.775V
- OUTPUT control (R3) is positioned at Specified Output Level.
- RECORD control (R1) is positioned at Specified Input Level.
- Each level given in the diagram shows values when a 400 Hz Specified Input Level is applied.

Fig. 6-1

7 LUBRICATION AND VOLTAGE CONVERSION

7-1 LUBRICATION

Lubrication is only required when parts are replaced. For this purpose, use oil and grease specified below.

Oil: TEAC spindle oil (from TEAC TZ-255 oil kit), Mobil D.T.E. Oil Light, or equivalent

Grease: ORE-LUBE G1/3 or equivalent

1. Apply a drop of oil with an oil applicator to a point about 1/3 the way down the shaft (from the free end) of the flywheel, then insert the shaft into the capstan housing.
2. Apply a suitable amount of light grease to the well of the flywheel bearing.

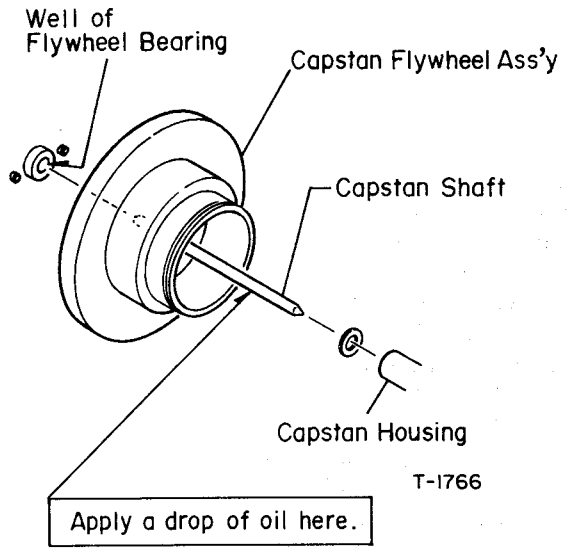


Fig. 7-1

7-2 VOLTAGE SELECTOR SETTING PROCEDURE (FOR GENERAL EXPORT MODELS)

1. Always disconnect the power line cord before making these adjustments.
2. Remove the top cover of the deck by removing the screws from the sides.
3. Locate the voltage selector, shown in the illustration, to the front of the power transformer.
4. Loosen the two screws in the shorting bar and move the bar so that it shorts across the terminals marked with the required voltage (100, 117, 220 or 240).
5. Retighten the screws and replace the top cover.

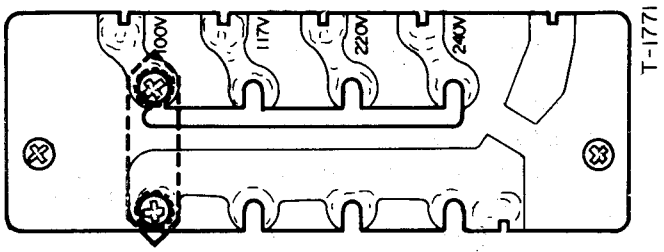


Fig. 7-2

7-3 AC POWER LINE FREQUENCY ADAPTATION

Since the C-3 employs a DC servo motor, 50 Hz or 60 Hz operation is permitted without power line frequency adaptation.

8 SPECIFICATIONS AND SERVICE DATA

SPECIFICATIONS

Track System 4-track, 2-channel stereo
3 Heads Erase, Record & Playback
Type of Tape Cassette tape, C-60 and C-90
(Philips type)
Tape Speed 4.8 cm/s (1-7/8 ips)
Input (level and impedance)
MIC: Specified input level;–57dB (1.09mV)/ 10kohms
Min. input level;–67 dB (345μV)
LINE IN: Specified input level; –9 dB(274 mV)/ 50kohms
Min. input level;–19 dB (86mV)
DIN*: Min. input level;–35 dB (13.8mV)
Outputs(level and load impedance)
OUTPUT: Max. output level; –3 dB (548 mV)/ 50kohms
Specified output level; –5 dB (435 mV)
Headphones: Specified output level;–18 dB (97.5mV/ 8 ohms
Equalization
METAL: 3180μs+70μs
CO(CrO2): 3180μs+70μs
NORMAL: 3180μs+120μs
Head Configuration
1/2-track, 1-channel Erase Head
1/4-track, 2-channel dual-gap record and playback heads
Motor FG servo controlled DC motor
Bias Frequency 100 kHz
Operation Position Horizontal
Power Requirements
100/117/220/240V AC,50/60 Hz,25W (General Export Model)
117 V AC, 60 Hz, 25 W (U.S.A./Canada Model)
220 V AC, 50 Hz, 25W (Europe Model)
240 V AC, 50 Hz, 25W (U.K./Aus. Model)
Weight 10 kg (22 lbs.) net
* Pursuant to DIN standards

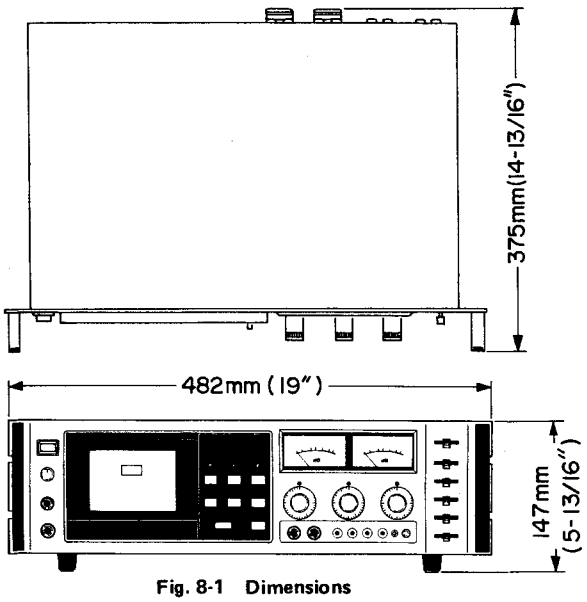


Fig. 8-1 Dimensions

SERVICE DATA

MECHANICAL
Tape Speed Deviation 3,000 Hz±45 Hz
Tape Speed Drift 45 Hz
Wow and Flutter
Playback: 0.08% (WRMS)
Record/Playback: 0.22%(RMS)
Pinch Roller Pressure 350 g to 450 g (12.3 oz. to 15.9 oz.)
Reel Torque
Take-up: 40 to 60 g.cm (0.6 to 0.8 oz-inch)
Supply: 3 to 6 g.cm (0.04 to 0.08 oz-inch)
Fast Forward: 80 to 150 g.cm(1.1 to 2.1 oz-inch)
Rewind: 100 to 150 g.cm(1.4 to 2.1 oz-inch)
Fast Winding Time
90 seconds for MTT-501 (C-60)

ELECTRICAL
Frequency Response
Playback Reference 315 Hz:
40 Hz,+2, –2 dB
6.3 kHz,+2, –2 dB
14 kHz,+2, –2.5 dB
Overall Reference 400 Hz:
31.5 Hz+2, –4 dB
63 Hz;+2, –2 dB
10 kHz;+2, –2 dB (NORMAL, Co (CrO2))
+2, –3 dB (METAL)
16 kHz; +2, –4 dB (NORMAL)
18 kHz; +2, –6 dB (Co(CrO2), METAL)
Signal to Noise Ratio
Playback method:
NORMAL tape;48 dB (min.)
Record/Playback method:
Co(CrO2) & METAL tapes; 48 dB (min.)
NORMAL tape; 45 dB (min.)
With Dolby Noise Reduction used for recording and playback, S/N ratio is improved by 5 dB at 1 kHz and 10 dB at frequencies over 5 kHz.
Erase Efficiency 65 dB min.
Channel Separation 35 dB min. (at 1 kHz)
Crosstalk Between Adjasent Tracks 40 dB min. (at 125 Hz)
Total Harmonic Distortion 2.0% or less w/3 types tape

NOTES:
- Improvements may result in Specifications and Service Data changes.
- Value of "dB" in the Data refers to 0 dB (0.775 V), except where specified.

PART 2

PARTS LIST

PARTS ORDERING INFORMATION

Spare parts are available through your nearest TEAC Authorized Service Center or directry from the TEAC office, the address of which is written on the back cover. When ordering parts always include the following information:

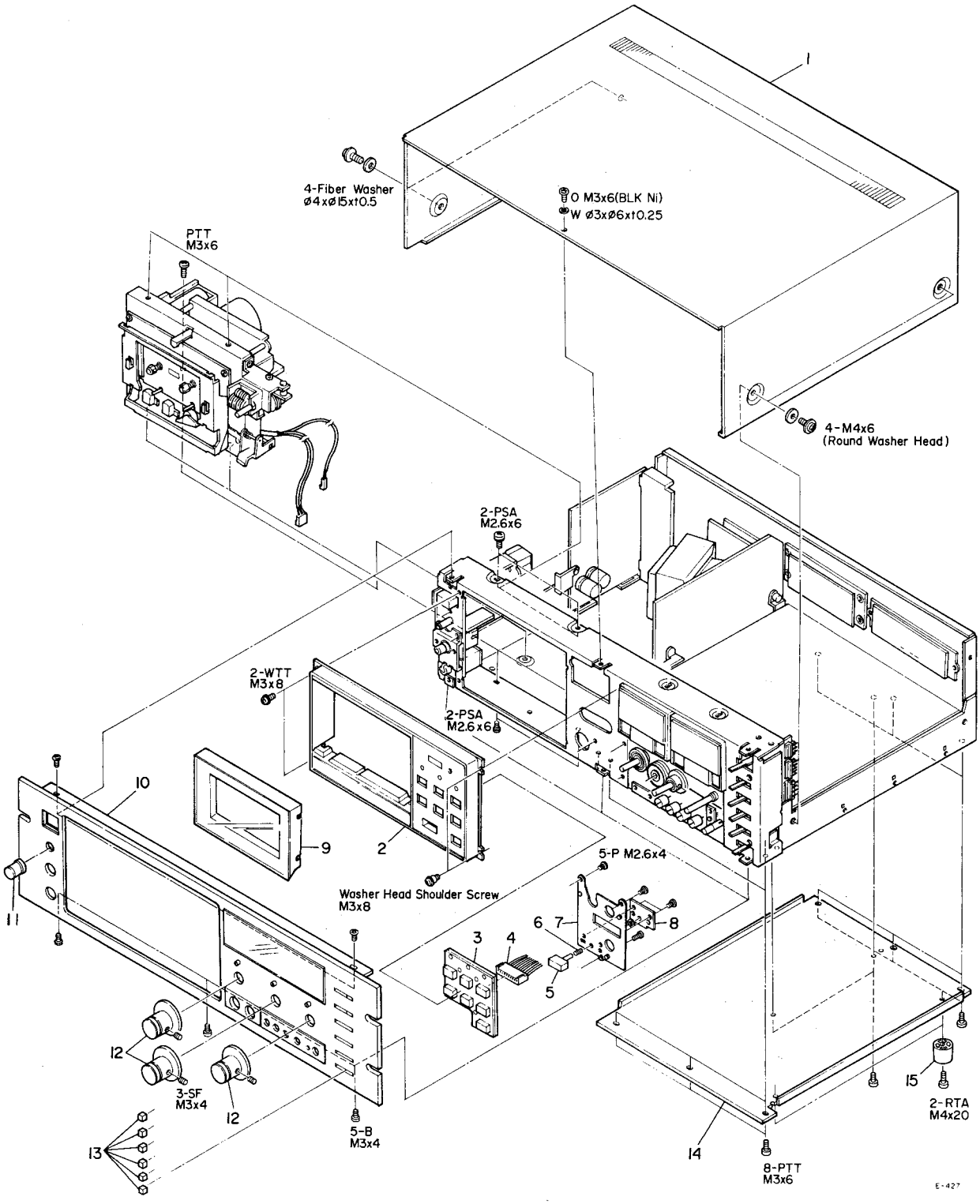
1. MODEL
2. REF. NO.
3. PARTS NO.
4. DESCRIPTION
5. UNIT SERIAL NO.
6. MANUAL CODE NO.

NOTICE REGARDING PARTS ORDERS

1. Do not order by REF. NO. only.
2. In some instances, individual minor parts are not available. In such a case, the entire assembly including the part requested will be sent to you.
3. Parts are identical between the different models with the exceptions as coded by the designations in the REMARKS column.
4. PC Boards shown viewed from foil side.
5. Part marked with * require longer delivery time than regular parts.

1. EXPLODED VIEWS AND PARTS LIST SECTION

EXPLODED VIEW-1

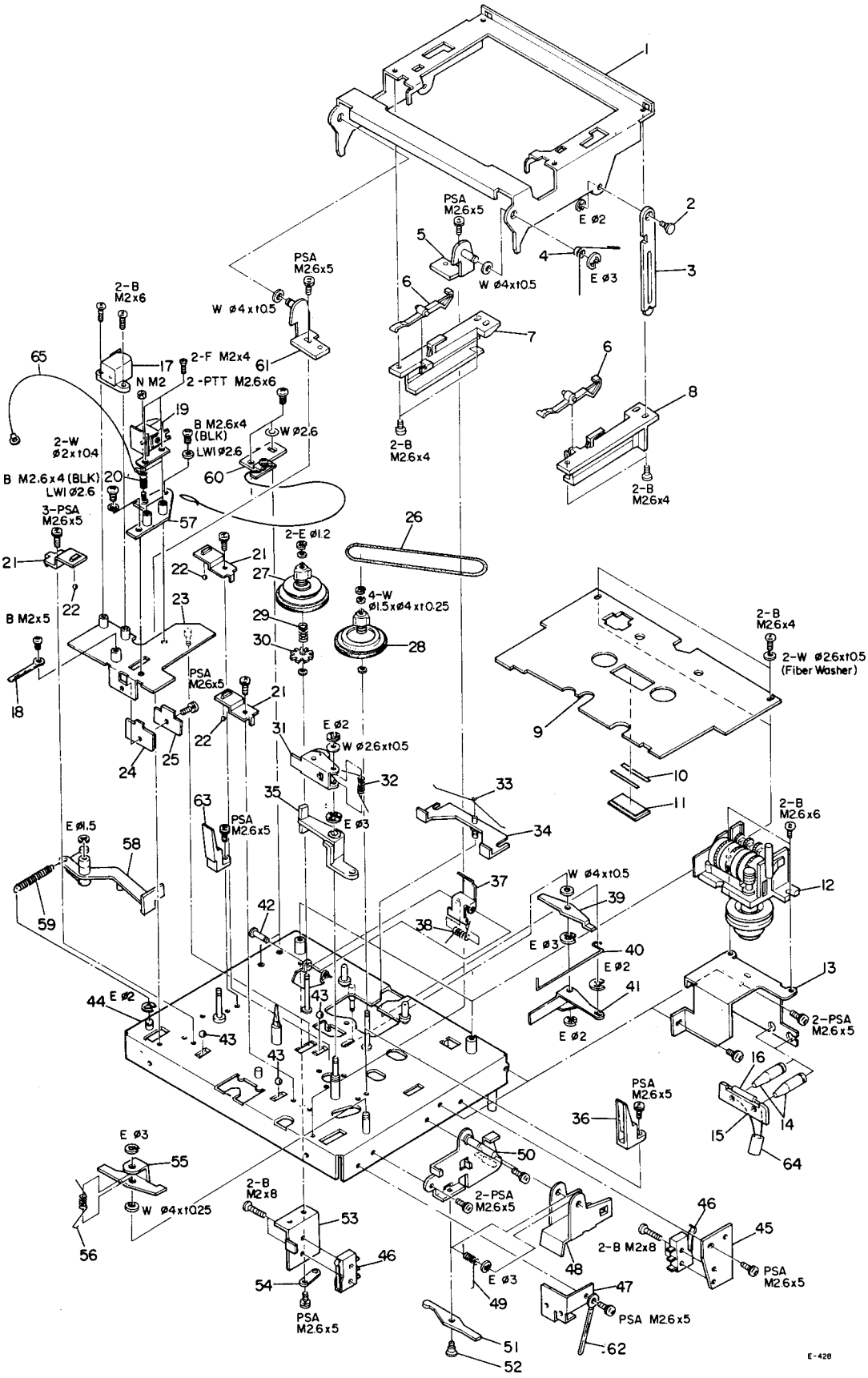


REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1 - 1	*55523800	Cover, Top	
1 - 2	*55022250	Escutcheon Assy, Cassette	
1 - 3	*51380090	Key Unit	
1 - 4	51221740	Connector Socket, 12P	
1 - 5	*55331830	Button, Eject	Part of 1 - 2
1 - 6	*55242060	Spring, Switch	Part of 1 - 2
1 - 7	*55556500	Plate, Switch Pressure	Part of 1 - 2
1 - 8	*55347170	Holder, Button	Part of 1 - 2
1 - 9	55031871	Cover Assy, Cassette	
1 - 10	*55022240	Panel Assy, Front; C	JAPAN
	*55022230	Panel Assy, Front; B	All except JAPAN
1 - 11	55047120	Knob Assy, TIMER	
1 - 12	55430271	Knob, VR	
1 - 13	55345210	Knob, Lever Switch	
1 - 14	*55523401	Cover, Bottom	
1 - 15	*55046760	Foot	

INCLUDED ACCESSORIES

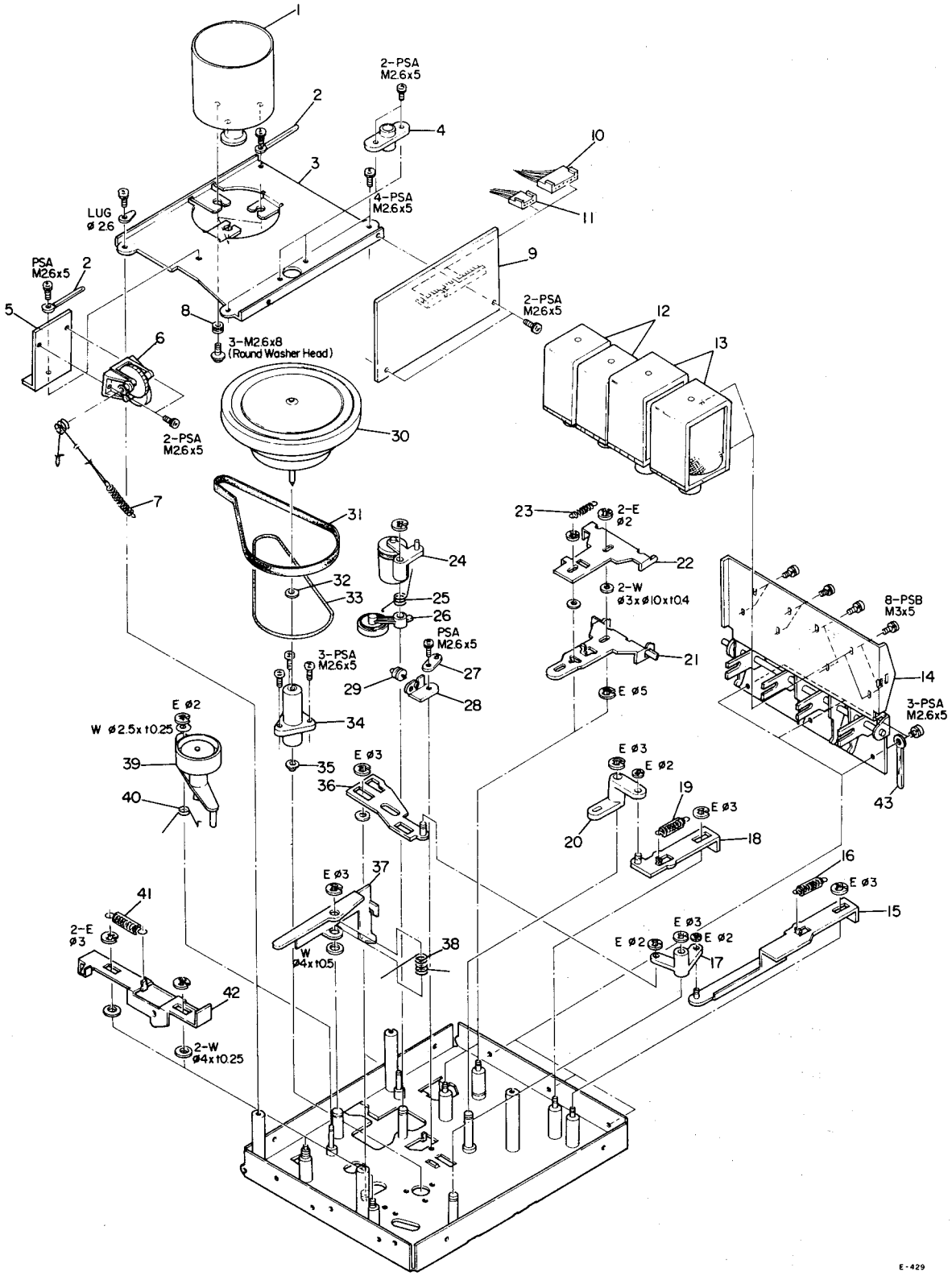
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	51280650	Cord Assy, Input-output Connection	
	51013690	Information Supplement, Cassette	JAPAN
	51013450	Information Supplement, Cassette	U.S.A.
	51014950	Information Supplement, Cassette	All except JAPAN, U.S.A.
	55556420	Plate, Handle; L	
	55556430	Plate, Handle; R	
	55045670	Handle Assy x 2	
	55449950	Washer x 4	
	55346590	Spacer x 4	
	55646820	Seal, Memory	
		Screw, O M5 x 15 x 4	
		Screw, F M4 x 10 x 4	
	51016790	C-3 Owner's Manual	JAPAN
	51016800	C-3 Owner's Manual	U.S.A.
	51016810	C-3 Owner's Manual	All except JAPAN, U.S.A.

EXPLODED VIEW-2



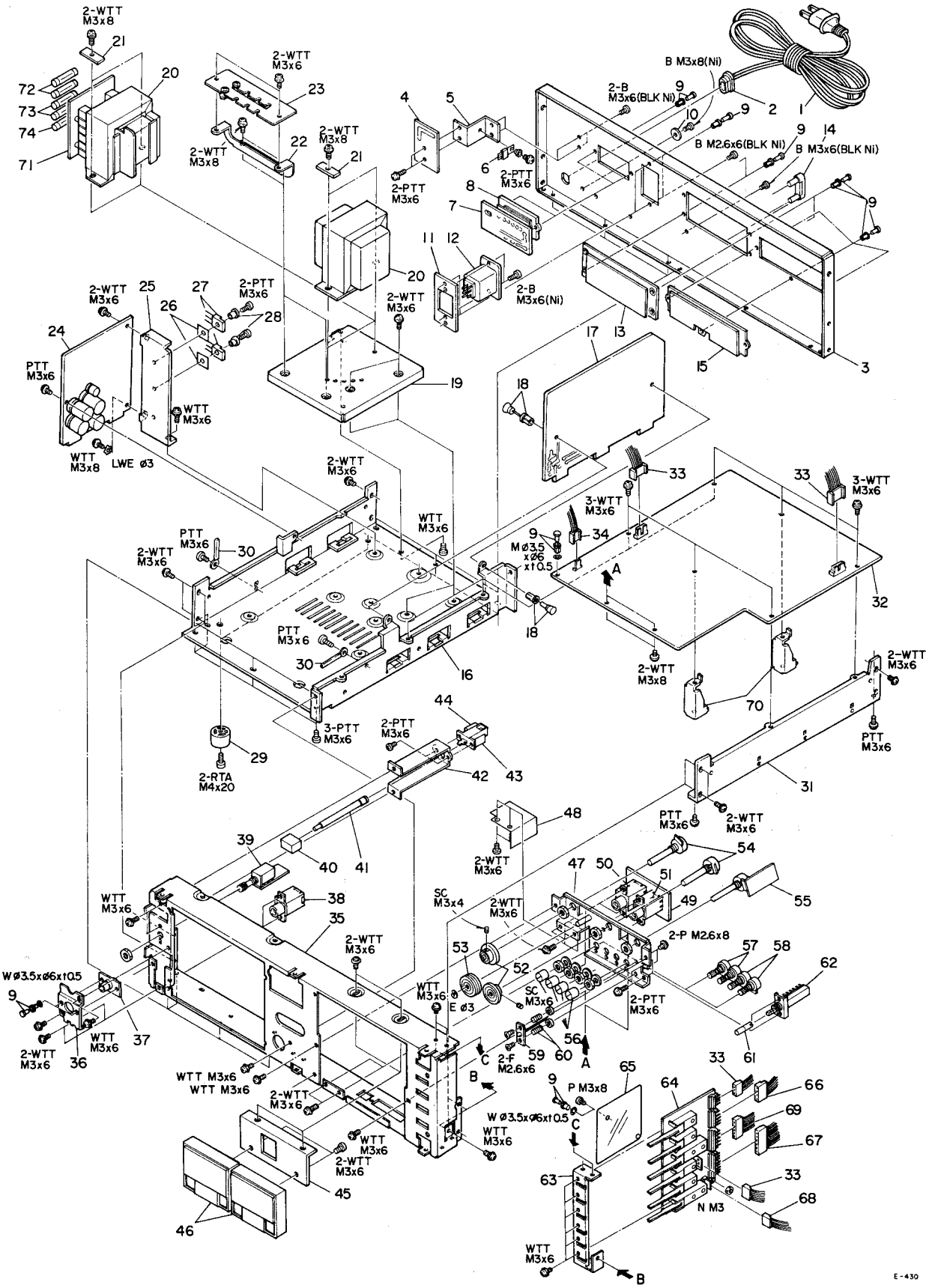
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 1	*55532850	Holder, Cassette	
2 - 2	*55449580	Shaft, Lock Plate	
2 - 3	*55346120	Plate, Lock	
2 - 4	*55242020	Spring, Holder	
2 - 5	*55047150	Bracket, Cassette Holder; R	
2 - 6	55346150	Spring, Cassette Pressure	
2 - 7	55346140	Guide, Cassette; R	
2 - 8	55346130	Guide, Cassette; L	
2 - 9	*55556550	Plate, Cassette Holder	
2 - 10	*55555820	Tape, Adhesive	
2 - 11	*55346380	Lens, Lamp	
2 - 12	55046600	Counter Assy	
2 - 13	*55555350	Bracket, Counter Assy	
2 - 14	*55344480	Cushion, Rubber	
2 - 15	*51688980	PCB Assy, REED SWITCH	
	*51675490	PCB, REED SWITCH	Part of 2 - 15
2 - 16	51380060	Switch, Reed	Part of 2 - 15
2 - 17	55696130	Head, Erase	
2 - 18	*55810620	Clamper, Cord; E	
2 - 19	55696060	Head, REC/PLAY	
2 - 20	55241410	Spring, REC/PLAY Head	
2 - 21	*55555330	Pressure Plate, Head Base Plate	
2 - 22	55400550	Steel Ball, $\phi 2$	
2 - 23	*55047170	Plate Assy, Head Base	
2 - 24	*55555300	Plate, Head Base; A	
2 - 25	*55555310	Plate, Head Base; B	
2 - 26	55346170	Belt, Counter	
2 - 27	55046880	Reel Table Assy, Supply	
2 - 28	55044641	Reel Table Assy, Take-up	
2 - 29	*55242070	Spring, Friction Plate	
2 - 30	*55343040	Plate, Friction	
2 - 31	55048280	Arm Assy, Pinch Roller	
2 - 32	*55242850	Spring, Pinch Roller	
2 - 33	*55203330	Spring, Brake	
2 - 34	*55046690	Plate Assy, Brake	
2 - 35	*55346060	Arm Assy, Pinch Roller Actuating	
2 - 36	*55344441	Guide, Cassette	
2 - 37	*55555442	Lever, Safety; D	
2 - 38	*55241970	Spring, Safety Lever	
2 - 39	*55555460	Arm, Pressure; B	
2 - 40	*55241960	Rod, Brake Actuating	
2 - 41	*55555410	Arm, Brake Actuating	
2 - 42	*55446560	Shaft, Safety Lever	
2 - 43	55400560	Steel Ball, $\phi 3$	
2 - 44	*55022060	Chassis, Mechanism	
2 - 45	*55555480	Bracket, Switch; B	
2 - 46	51300030	Switch, Micro	
2 - 47	*55555560	Angle, Spring	
2 - 48	*55555510	Arm, Eject	
2 - 49	*55242010	Spring, Eject Arm	
2 - 50	*55046710	Holder Assy, Switch	
2 - 51	*55555520	Arm, Eject	
2 - 52	*55810550	Screw, Shoulder; D	
2 - 53	*55555430	Bracket, Switch; A	
2 - 54	*55551970	Clamper, Cord	
2 - 55	*55555490	Arm, Eject Preventing	
2 - 56	*55242000	Spring, Preventing Arm	
2 - 57	*55047160	Plate Assy, Head Mounting	
2 - 58	55331740	Arm, Tension	
2 - 59	55242080	Spring, Tension	
2 - 60	*55556580	Plate, Tension Adjusting	
2 - 61	*55047140	Bracket, Cassette Holder; L	
2 - 62	*55810380	Clamper, Cord; A	
2 - 63	*55346831	Guide, Cassette; L	
2 - 64	*50548020	Mylar Cap., 0.01 mfd 50V	Part of 2 - 15
2 - 65	*51275260	Wire Assy, Mechanism	

EXPLODED VIEW-3



REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3 - 1	71051320	Motor Assy, DC	
3 - 2	*55810380	Clamper, Cord; A	
3 - 3	*55555340	Plate, DC Motor	
3 - 4	*55342770	Bearing, Flywheel	
3 - 5	*55555550	Bracket, Damper	
3 - 6	*55046730	Holder Assy, Damper; C	
3 - 7	*55242030	Spring, Damper	
3 - 8	*55345370	Cushion, Rubber	
3 - 9	*51688970	PCB Assy, JOINT	
3 - 10	*51221740	Connector, Socket; 12P	
3 - 11	*51221670	Connector, Socket; 5P	
3 - 12	*51630400	Solenoid, B	
3 - 13	51630391	Solenoid, A	
3 - 14	55031820	Bracket Assy, Solenoid	
3 - 15	*55046660	Lever Assy, Pause Actuating	
3 - 16	*55241950	Spring, Pause Actuating	
3 - 17	*55346110	Arm, Pause Actuating	
3 - 18	*55046650	Lever Assy, Actuating	
3 - 19	*55242130	Spring, Actuating; A	
3 - 20	*55346100	Arm, Head Base Plate Actuating	
3 - 21	*55046680	Lever Assy, FF; A	
3 - 22	*55555400	Plate, Brake Actuating; B	
3 - 23	*55203320	Spring, Lever; B	
3 - 24	55046620	Arm Assy, FF; C	
3 - 25	*55241940	Spring, FF Arm; B	
3 - 26	55046630	Arm Assy, FF; D	
3 - 27	*55551970	Clamper, Cord	
3 - 28	*55555420	Bracket, Lamp; A	
3 - 29	51420890	Lamp	
3 - 30	55046590	Flywheel Assy, Capstan	
3 - 31	55348420	Belt, Capstan Drive	
3 - 32	55500310	Washer, Thrust	
3 - 33	55344160	Belt, Fast Wind	
3 - 34	55040910	Housing Assy, Capstan	
3 - 35	55341300	Washer, Oil Retaining	
3 - 36	*55046670	Lever Assy, Pause	
3 - 37	*55555450	Arm, Pressure; A	
3 - 38	*55241980	Spring, Pressure Arm	
3 - 39	55044661	Pulley Assy, Tension	
3 - 40	55203300	Spring, Tension	
3 - 41	*55241990	Spring, Eject	
3 - 42	*55046700	Lever Assy, Eject	
3 - 43	*55810380	Clamper, Cord; A	

EXPLODED VIEW-4



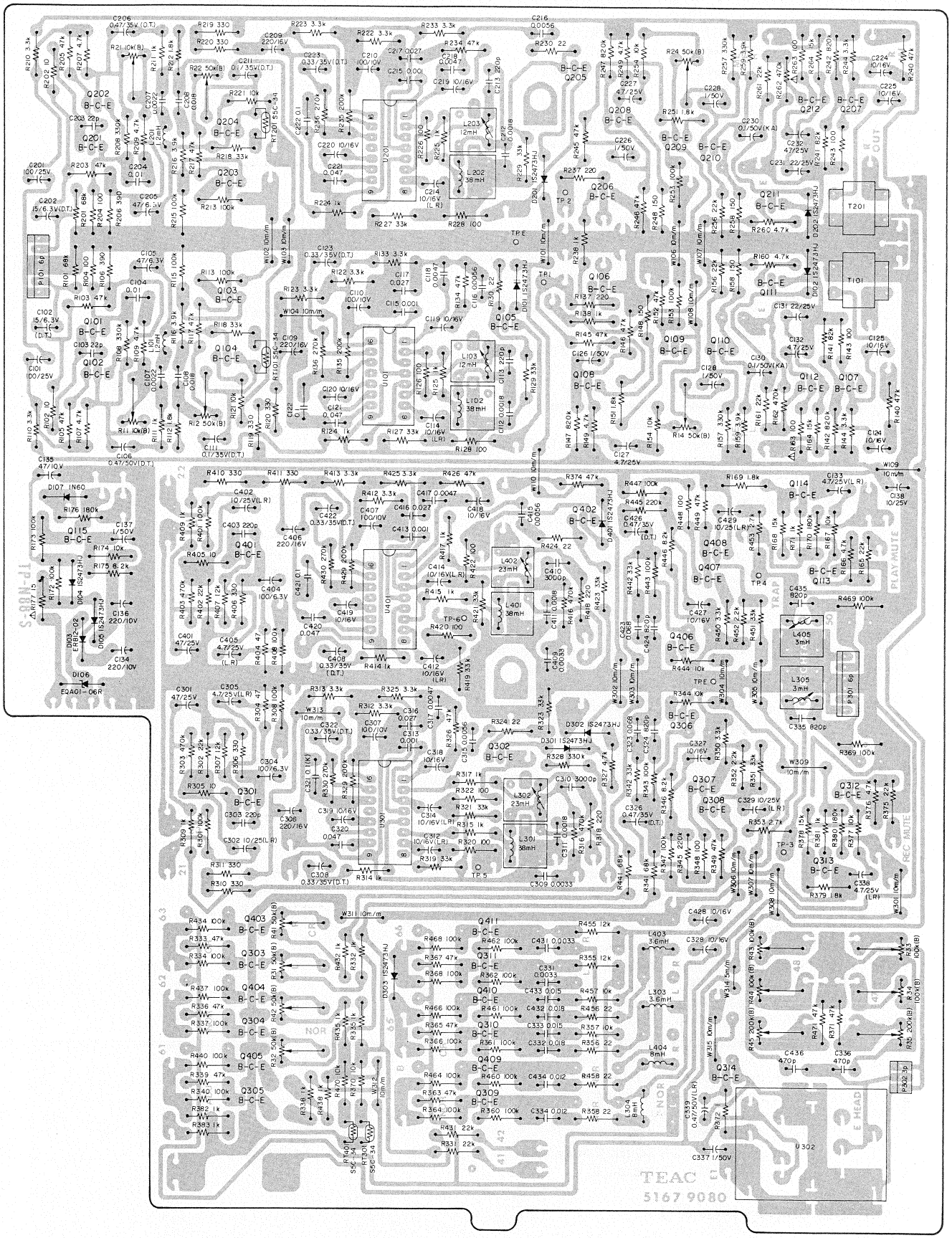
E-430

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 1	*51280340	Cord, AC Power	JAPAN, GENERAL EXPORT
	*51280750	Cord, AC Power	U.S.A., CANADA
	*51280170	Cord, AC Power	EUROPE
	*51280360	Cord, AC Power	U.K.
	*51280310	Cord, AC Power	AUSTRALIA
4 - 2	*55346610	Strain Relief, AC Power Cord	U.K.
	*55346630	Strain Relief, AC Power Cord	AUSTRALIA
	*55346600	Strain Relief, AC Power Cord	All except U.K., AUSTRALIA
4 - 3	*55523810	Panel, Rear	
4 - 4	*51688950	PCB Assy, FILTER	
4 - 5	*55556440	Heat Sink, Small	
4 - 6	*50425370	Transistor, 2SA634(L)	Part of 4 - 4
4 - 7	*51688010	PCB Assy, REMOTE CONTROL	
	*51678010	PCB, REMOTE CONTROL	Part of 4 - 7
	*51814840	Carbon Res., 1.2 k ohm ¼W 5%	Part of 4 - 7
	*51223360	Connector Socket, 12P	Part of 4 - 7
	*55555660	Plate, Connector	Part of 4 - 7
4 - 8	*55346240	Escutcheon, REMOTE CONTROL	
4 - 9	*55341180	Push Rivet	
4 - 10	*55550630	Washer, GND	All except U.K., EUROPE
4 - 11	*55553440	Plate, Connector	
4 - 12	*51223390	Socket, 6P	
4 - 13	*51688930	PCB Assy, IN/OUTPUT (DBX)	
	*51678930	PCB IN/OUTPUT (DBX)	Part of 4 - 13
	*51240550	Terminal Assy (DBX)	Part of 4 - 13
4 - 14	51240510	Plug, Short Pin	Part of 4 - 13
4 - 15	*51688920	PCB Assy, IN/OUTPUT	
	*51678920	PCB, IN/OUTPUT	Part of 4 - 15
	*51815220	Carbon Res., 47 k ohm ¼W 5%	Part of 4 - 15
	*51260330	Terminal Assy	Part of 4 - 15
4 - 16	*55532691	Chassis, Amplifier	
4 - 17	*51689040	PCB Assy, CONTROL	
4 - 18	*55344730	Rivet, T-type	
4 - 19	*55533531	Bracket, Power Transformer; B	
4 - 20	51522140	Transformer, Power	JAPAN
	51521821	Transformer, Power	U.S.A., CANADA
	51521840	Transformer, Power	U.K., EUROPE, AUSTRALIA
	51522150	Transformer, Power	GENERAL EXPORT
4 - 21	*55556260	Washer, Transformer	
4 - 22	*55550600	Bracket, PCB; B	GENERAL EXPORT
4 - 23	*51685481	PCB Assy, VOLTAGE SELECTOR	GENERAL EXPORT
	*51675481	PCB, VOLTAGE SELECTOR	Part of 4 - 23
	*55550620	Plate, Voltage Select; A	Part of 4 - 23
4 - 24	*51688343	PCB Assy, POWER SUPPLY	
4 - 25	*55555640	Heat Sink	
4 - 26	*50332910	Plate, Insulating	Part of 4 - 24
4 - 27	*51450870	Transistor, 2SD313(E)	Part of 4 - 24
4 - 28	*50332950	Tube, Insulating	Part of 4 - 24
4 - 29	*55046760	Foot	
4 - 30	*55810380	Clamper, Cord; A	
4 - 31	*55510311	Chassis, Side	
4 - 32	*51689080	PCB Assy, REC AND PLAY AMPL	
4 - 33	*51221650	Connector Socket, 6P	
4 - 34	*51221680	Connector Socket, 3P	
4 - 35	*55510341	Chassis, Front	
4 - 36	*55556490	Bracket, Jack	
4 - 37	*51240570	Jack, TEST IN	
4 - 38	*51240220	Jack, PHONES	
4 - 39	*51687990	PCB Assy, TIMER	
	*51677990	PCB, TIMER	Part of 4 - 39
	51330120	Switch, Rotary; 4P3T	Part of 4 - 39
4 - 40	55344310	Button, B	

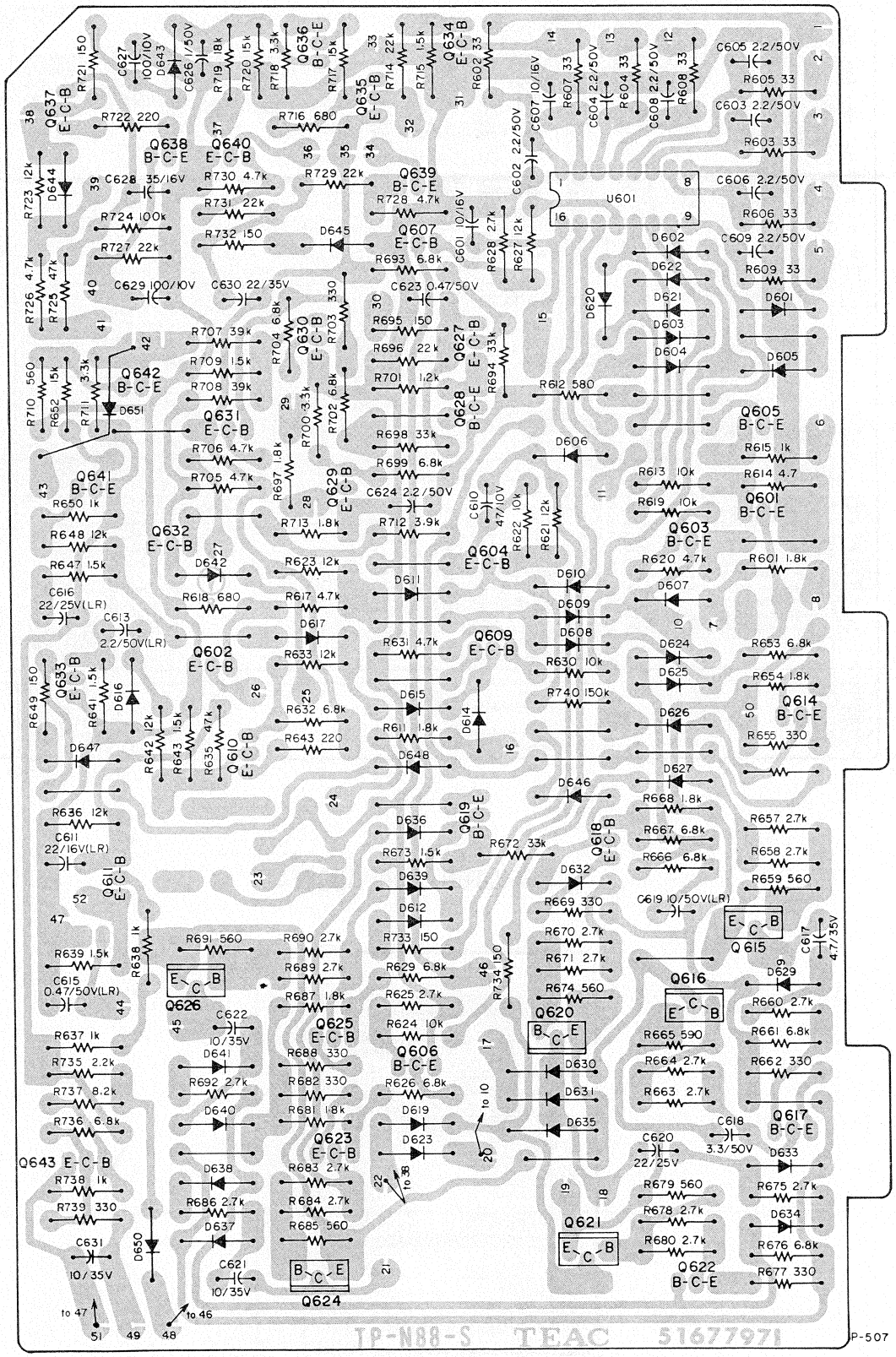
(Continued on page 34)

2. PC BOARD SECTION(Diagram)

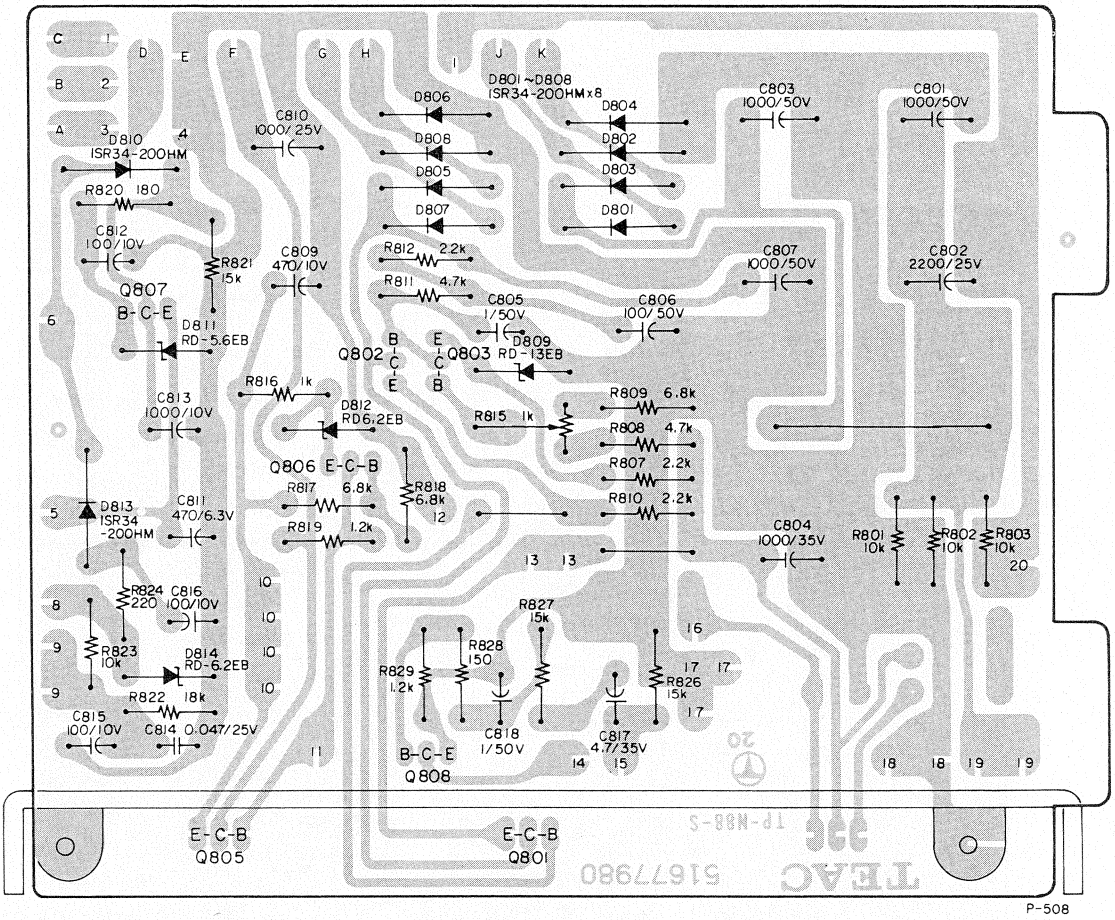
2–1. REC AND PLAY AMPL. PCB ASSY



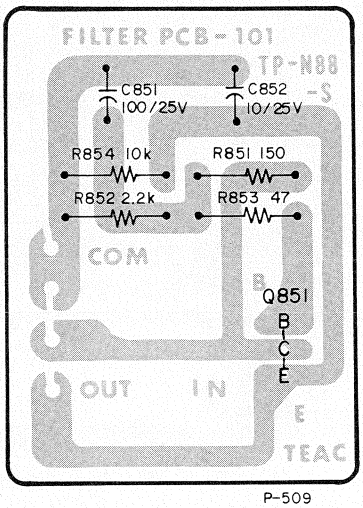
2-2. CONTROL PCB ASSY



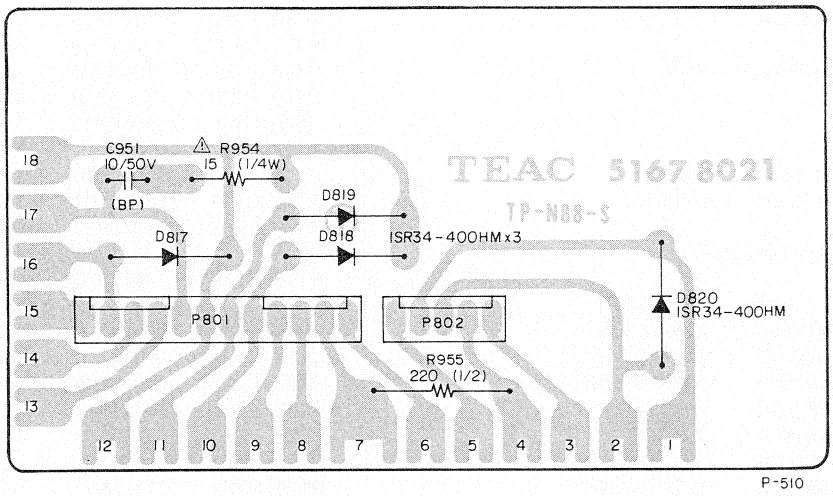
2-3. POWER SUPPLY PCB ASSY



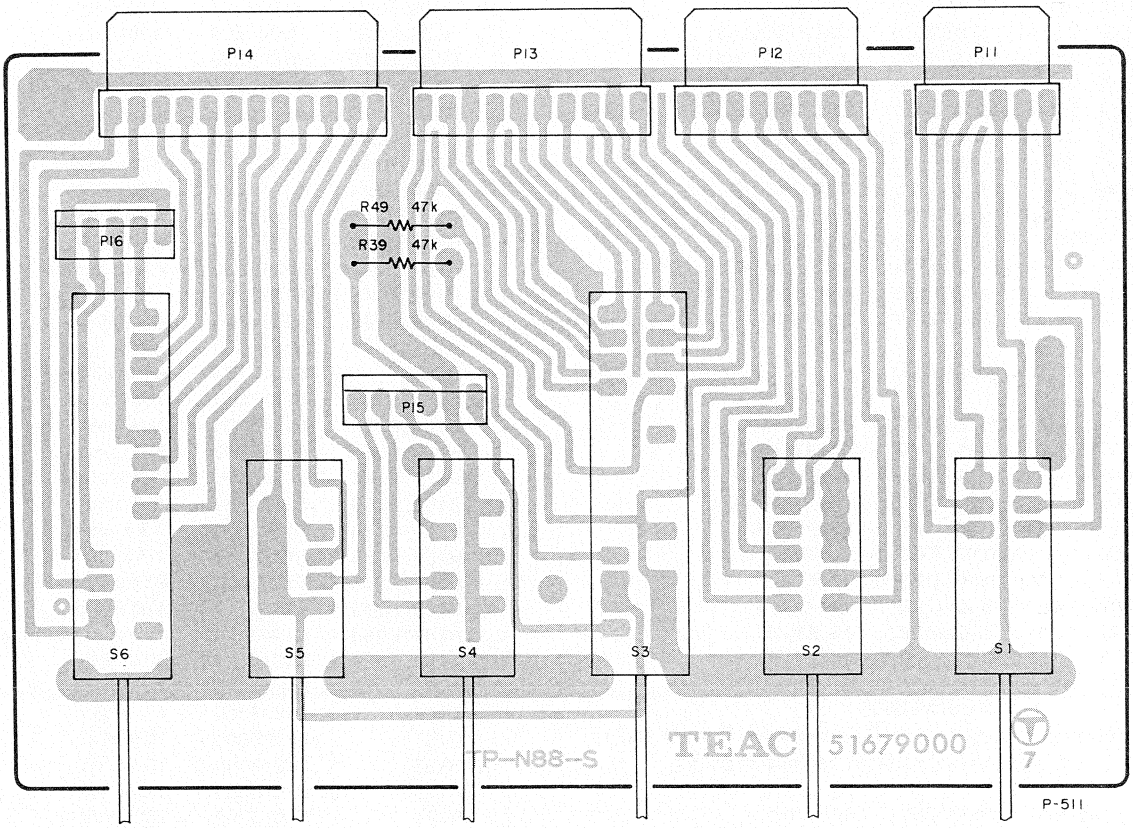
2-4. FILTER PCB ASSY



2-5. JOINT PCB ASSY



2-6. LEVER SW PCB ASSY



2. PC BOARD SECTION (Parts List)

2-1. REC AND PLAY AMPL. PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51689080	PCB Assy
	51679080	PCB
	ICs	
U101, U202	51470400	NE645B
U301, U401	51470400	NE645B
	TRANSISTORS	
Q101, Q201	51451190	2SC1844(F)
Q102, Q202	50424950	2SC1222(E)
Q103, Q203	51450920	2SC1740LN(S)
Q104, Q204	51450920	2SC1740LN(S)
Q105, Q205	51451030	2SK68A(M)
Q106, Q206	51450860	2SC1636(2)
Q107, Q207	51450920	2SC1740LN(S)
Q108, Q208	51450920	2SC1740LN(S)
Q109, Q209	51450920	2SC1740LN(S)
Q110, Q210	51450920	2SC1740LN(S)
Q111, Q211	51450860	2SC1636(2)
Q112, Q212	51451100	2SC1637(1)
Q113	51450920	2SC1740LN(S)
Q114	51451320	2SA933LN(S)
Q115	51451320	2SA933LN(S)
Q301, Q401	51451190	2SC1844(F)
Q302, Q402	51451030	2SK68A(M)
Q303, Q403	51450920	2SC1740LN(S)
Q304, Q404	51450920	2SC1740LN(S)
Q305, Q405	51450920	2SC1740LN(S)
Q306, Q406	51450920	2SC1740LN(S)
Q307, Q407	51450920	2SC1740LN(S)
Q308, Q408	51451130	2SA608(F)
Q309, Q409	51450920	2SC1740LN(S)
Q310, Q410	51450920	2SC1740LN(S)
Q311, Q411	51450920	2SC1740LN(S)
Q312	51450920	2SC1740LN(S)
Q313	51451320	2SA933LN(S)
Q314	51450980	2SC1741(Q)
	DIODES	
D101, D201	51431180	1S2473HJ
D102, D202	51431180	1S2473HJ
D103	51432430	ERB12-02GI
D104	51431180	1S2473HJ
D105	51451180	1S2473HJ
D106	51431530	EQA01-06R
D107	50422130	1N60
D301, D401	51431180	1S2473HJ
D302	51431180	1S2473HJ
D303	51431180	1S2473HJ
	RESISTORS **All resistors are rated ±5% tolerance, ¼ watt and of carbon type unless otherwise noted.**	
R101, R201	51815260	68 k ohm
R102, R202	51814340	10 ohm
R103, R203	51815220	47 k ohm
R104, R204	51814580	100 ohm
R105, R205	51815220	47 k ohm

REF. NO.	PARTS NO.	DESCRIPTION
R106, R206	51814720	390 ohm
R107, R207	51814980	4.7 k ohm
R108, R208	51815420	330 k ohm
R109, R209	51814980	4.7 k ohm
R110, R210	51814940	3.3 k ohm
R111, R211	51814820	1 k ohm
R112, R212	51814880	1.8 k ohm
R113, R213	51815300	100 k ohm
R115, R215	51815300	100 k ohm
R116, R216	51814950	3.9 k ohm
R117, R217	51815220	47 k ohm
R118, R218	51815180	33 k ohm
R119, R219	51814700	330 ohm
R120, R220	51814700	330 ohm
R121, R221	51815060	10 k ohm
R122, R222	51814940	3.3 k ohm
R123, R223	51814940	3.3 k ohm
R124, R224	51814820	1 k ohm
R125, R225	51814820	1 k ohm
R126, R226	51814580	100 ohm
R127, R227	51815180	33 k ohm
R128, R228	51814580	100 ohm
R129, R229	51815180	33 k ohm
R130, R230	51814420	22 ohm
R133, R233	51814940	3.3 k ohm
R134, R234	51815220	47 k ohm
R135, R235	51815370	200 k ohm
R136, R236	51815400	270 k ohm
R137, R237	51814500	220 ohm
R138, R238	51814820	1 k ohm
R140, R240	51815220	47 k ohm
R141, R241	51815280	82 k ohm
R142, R242	51815520	820 k ohm
R143, R243	51814580	100 ohm
R144, R244	51814940	3.3 k ohm
R145, R245	51815220	47 k ohm
R146, R246	51815220	47 k ohm
R147, R247	51815520	820 k ohm
R148, R248	51814620	150 ohm
R149, R249	51814980	4.7 k ohm
R151, R251	51814880	1.8 k ohm
R152	51815220	47 k ohm
R153, R253	51815300	100 k ohm
R154, R254	51815060	10 k ohm
R156, R256	51815140	22 k ohm
R157, R257	51815420	330 k ohm
R158, R258	51814620	150 ohm
R159, R259	51814960	3.9 k ohm
R160, R260	51814980	4.7 k ohm
R161, R261	51815140	22 k ohm
R162, R262	51815460	470 k ohm
R163, R263	51842490	100 ohm Non-Flammable
R164, R264	51815100	15 k ohm
R165	51815140	22 k ohm
R166	51814980	4.7 k ohm
R167	51815060	10 k ohm
R168	51815100	15 k ohm
R169	51814880	1.8 k ohm
R170	51815360	180 k ohm
R171	51814820	1 k ohm
R172, R173	51815300	100 k ohm
R174	51815060	10 k ohm
R175	51815040	8.2 k ohm

REF. NO.	PARTS NO.	DESCRIPTION
R176	51815360	180 k ohm
R177	51818280	15 ohm Non-Flammable
R301, R401	51815300	100 k ohm
R302, R402	51815140	22 k ohm
R303, R403	51815460	470 k ohm
R304, R404	51814500	47 ohm
R305, R405	51814340	10 ohm
R306, R406	51814700	330 ohm
R307, R407	51815080	12 k ohm
R308, R408	51815300	100 k ohm
R309, R409	51814820	1 k ohm
R310, R410	51814700	330 ohm
R311, R411	51814700	330 ohm
R312, R412	51814940	3.3 k ohm
R313, R413	51814940	3.3 k ohm
R314, R414	51814820	1 k ohm
R315, R415	51814820	1 k ohm
R316, R416	51815460	470 k ohm
R317, R417	51814820	1 k ohm
R318, R418	51814660	220 ohm
R319, R419	51815180	33 k ohm
R320, R420	51814580	100 ohm
R321, R421	51815180	33 k ohm
R322, R422	51814580	100 ohm
R323, R423	51815180	33 k ohm
R324, R424	51814420	22 ohm
R325, R425	51814940	3.3 k ohm
R326, R426	51815220	47 k ohm
R327	51814980	4.7 k ohm
R328	51815420	330 k ohm
R329, R429	51815370	200 k ohm
R330, R430	51815400	270 k ohm
R331, R431	51815140	22 k ohm
R332, R432	51814820	1 k ohm
R333	51815220	47 k ohm
R334, R434	51815300	100 k ohm
R335, R435	51814820	1 k ohm
R336	51815220	47 k ohm
R337, R437	51815300	100 k ohm
R338, R438	51814820	1 k ohm
R339	51815220	47 k ohm
R340, R440	51815300	100 k ohm
R341, R441	51815260	68 k ohm
R342, R442	51815180	33 k ohm
R343, R443	51815300	100 k ohm
R344, R444	51815060	10 k ohm
R345, R445	51815380	220 k ohm
R346, R446	51815040	8.2 k ohm
R347, R447	51815300	100 k ohm
R348, R448	51814580	100 ohm
R349, R449	51815220	47 k ohm
R350, R450	51814940	3.3 k ohm
R351, R451	51815180	33 k ohm
R352, R452	51814900	2.2 k ohm
R353, R453	51814920	2.7 k ohm
R355, R455	51815080	12 k ohm
R356, R456	51814420	22 ohm
R357, R457	51815060	10 k ohm
R358, R458	51814420	22 ohm
R360, R460	51815300	100 k ohm
R361, R461	51815300	100 k ohm
R362, R462	51815300	100 k ohm
R363	51815220	47 k ohm

REF. NO.	PARTS NO.	DESCRIPTION
R364, R464	51815300	100 k ohm
R365	51815220	47 k ohm
R366, R466	51815300	100 k ohm
R367	51815220	47 k ohm
R368, R468	51815300	100 k ohm
R369, R469	51815300	100 k ohm
R370, R470	51815060	10 k ohm
R371, R471	51815220	47 k ohm
R372	51814100	1 ohm
R374	51815220	47 k ohm
R375	51815140	22 k ohm
R376	51814980	4.7 k ohm
R377	51815060	10 k ohm
R378	51815100	15 k ohm
R379	51814880	1.8 k ohm
R380	51815360	180 k ohm
R381~R383	51814820	1 k ohm

CAPACITORS

C101, C201	51719790	Elec.	100 mfd	25V	
C102, C202	51711170	Dip. Tant.	15 mfd	6.3V	
C103, C203	51722040	Ceramic	22 pfd	50V	10%
C104, C204	51718560	Mylar	0.01 mfd	50V	5%
C105, C205	51713450	Elec.	47 mfd	6.3V	
C106, C206	51710410	Dip. Tant.	0.47 mfd	35V	
C107, C207	51703600	Mylar	0.0022 mfd	50V	5%
C108, C208	51718620	Mylar	0.018 mfd	50V	5%
C109, C209	51719870	Elec.	220 mfd	16V	
C110, C210	51713570	Elec.	100 mfd	10V	
C111, C211	51710230	Dip. Tant.	0.1 mfd	35V	
C112, C212	51703580	Mylar	0.0018 mfd	50V	5%
C113, C213	50543420	Polyst.	220 pfd	50V	10%
C114, C214	51715650	Elec.	10 mfd	16V	(LR)
C115, C215	51703760	Mylar	0.001 mfd	50V	10%
C116, C216	51703700	Mylar	0.0056 mfd	50V	5%
C117, C217	51718660	Mylar	0.027 mfd	50V	5%
C118, C218	50548910	Mylar	0.0047 mfd	50V	5%
C119, C219	51713150	Elec.	10 mfd	16V	
C120, C220	51713150	Elec.	10 mfd	16V	
C121, C221	51718960	Mylar	0.047 mfd	50V	10%
C122, C222	50548040	Mylar	0.1 mfd	50V	10%
C123, C223	51719070	Dip. Tant.	0.33 mfd	35V	10%
C124, C224	51719390	Elec.	10 mfd	16V	
C125, C225	51719390	Elec.	10 mfd	16V	
C126, C226	51712850	Elec.	1 mfd	50V	
C127, C227	51715630	Elec.	4.7 mfd	25V	
C128, C228	51712850	Elec.	1 mfd	50V	
C130, C230	51714300	Elec.	0.1 mfd	50V	(KA)
C131, C231	51719490	Elec.	22 mfd	25V	
C132, C232	50554490	Elec.	47 mfd	25V	
C133	51715630	Elec.	4.7 mfd	25V	(LR)
C134	51719860	Elec.	220 mfd	10V	
C135	51713470	Elec.	47 mfd	10V	
C136	51719860	Elec.	220 mfd	10V	
C137	51712850	Elec.	1 mfd	50V	
C138	51713170	Elec.	10 mfd	25V	

REF. NO.	PARTS NO.	DESCRIPTION			
C301, C401	50554490	Elec.	47 mfd	25V	
C302, C402	51715660	Elec.	10 mfd	25V	(LR)
C303, C403	51722160	Ceramic	220 pfd	50V	10%
C304, C404	51713550	Elec.	100 mfd	6.3V	
C305, C405	51715630	Elec.	4.7 mfd	25V	(LR)
C306, C406	51719870	Elec.	220 mfd	16V	
C307, C407	51719770	Elec.	100 mfd	10V	
C308, C408	51719070	Dip. Tant.	0.33 mfd	35V	10%
C309, C409	51703640	Mylar	0.0033 mfd	50V	5%
C310, C410	50596810	Polyst.	3000 pfd	50V	5%
C311, C411	51703580	Mylar	0.0018 mfd	50V	5%
C312, C412	51715650	Elec.	10 mfd	16V	(LR)
C313, C413	51703760	Mylar	0.001 mfd	50V	10%
C314, C414	51715650	Elec.	10 mfd	16V	(LR)
C315, C415	51703700	Mylar	0.0056 mfd	50V	5%
C316, C416	51718660	Mylar	0.027 mfd	50V	5%
C317, C417	50548910	Mylar	0.0047 mfd	50V	5%
C318, C418	51713150	Elec.	10 mfd	10V	
C319, C419	51713150	Elec.	10 mfd	16V	
C320, C420	50548270	Mylar	0.047 mfd	50V	10%
C321, C421	50548040	Mylar	0.1 mfd	50V	10%
C322, C422	51719070	Dip. Tant.	0.33 mfd	35V	10%
C323, C423	50549260	Mylar	0.068 mfd	50V	5%
C324, C424	51712230	Ceramic	820 pfd	50V	
C326, C426	51716450	Dip. Tant.	0.47 mfd	35V	
C327, C427	51719390	Elec.	10 mfd	16V	
C328, C428	51713150	Elec.	10 mfd	16V	
C329, C429	51715660	Elec.	10 mfd	25V	(LR)
C331, C431	51703640	Mylar	0.0033 mfd	50V	5%
C332, C432	51718620	Mylar	0.018 mfd	50V	5%
C333, C433	50548870	Mylar	0.015 mfd	50V	5%
C334, C434	51718580	Mylar	0.012 mfd	50V	5%
C335, C435	50543440	Polyst.	820 pfd	50V	10%
C336, C436	50547560	Dip. Mica	470 pfd	50V	
C337	51712850	Elec.	1 mfd	50V	
C338	51715630	Elec.	4.7 mfd	25V	(LR)
C339	51715580	Elec.	0.47 mfd	50V	(LR)
	VARIABLE RESISTORS				
R11, R21	51500920	Semi-fixed, 10 k ohm - B			
R12, R22	51500940	Semi-fixed, 50 k ohm - B			
R14, R24	51500940	Semi-fixed, 50 k ohm - B			
R31, R41	51500940	Semi-fixed, 50 k ohm - B			
R32, R42	51500940	Semi-fixed, 50 k ohm - B			
R33, R43	51500960	Semi-fixed, 100 k ohm - B			
R34, R44	51500960	Semi-fixed, 100 k ohm - B			
R35, R35	51502460	Semi-fixed, 200 k ohm - B			
	COILS/TRANSFORMERS				
L101, L201	50566611	Choke, 1.2 mH			
L102, L202	50566660	Choke, 38 mH			
L103, L203	50566550	Trap, 12 mH			
L301, L401	50566660	Choke, 38 mH			
L302, L402	50566650	Choke, 23 mH			
L303, L403	51600420	Rec. EQ, 3.6 mH			
L304, L404	50566350	Rec. EQ, 8 mH			
L305, L405	50566590	Trap, 3 mH			
T101, T201	51520740	Transf. Output, 3 k ohm : 8 ohm			

REF. NO.	PARTS NO.	DESCRIPTION
	MISCELLANEOUS	
U302	50401010	BIAS OSC UNIT, 100 k Hz
RT101, RT201	51431280	Thermistor, S5C34
RT301, RT401	51431280	Thermistor, S5C34
P101	51221300	Connector, Plug; 6P
P301	51221300	Connector, Plug; 6P
P302	51221270	Connector, Plug; 3P
	55447500	Pin, Combination
	51470160	Socket, IC

2-2. CONTROL PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51689040	PCB Assy
	51677971	PCB
	IC	
U601	51470470	M-54410P
	TRANSISTORS	
Q601~Q603	51450920	2SC1740LN(S)
Q604	51451330	2SC-1645(B)
Q605	51451000	2SC-2409(R, S)
Q606, Q607	51450920	2SC1740LN(S)
Q609	51450920	2SC-1740LN(S)
Q610	51451310	2SA-933LN(R)
Q611	51450920	2SC-1740LN(S)
Q614	51451310	2SA-933LN(R)
Q615, Q616	51450870	2SD-313(E)
Q617, Q618	51451310	2SA-933LN(R)
Q619	51450920	2SC-1740LN(S)
Q620, Q621	51450870	2SD-313(E)
Q622, Q623	51451310	2SA-933LN(R)
Q624	51450870	2SD-313(E)
Q625	51451310	2SA-933LN(R)
Q626	51450870	2SD-313(E)
Q627~Q630	51450920	2SC-1740LN(S)
Q631	51451310	2SA-933LN(R)
Q632~Q634	51450920	2SC-1740LN(S)
Q635	51451310	2SA-933LN(R)
Q636~Q640	51450920	2SC-1740LN(S)
Q641	51451310	2SA-933LN(R)
Q642, Q643	51450920	2SC-1740LN(S)
	DIODES	
D601, D602	51431180	1S2473HJ
D605~D612	51431180	1S2473HJ
D614~D617	51431180	1S2473HJ
D619~D627	51431180	1S2473HJ
D629	51431180	1S2473HJ
D630, D631	51431130	1SR34-200HM
D632~D634	51331180	1S2473HJ

REF. NO.	PARTS NO.	DESCRIPTION
D635	51431130	1SR34-200HM
D636~D648	51431180	1S2473HJ
D650	51431180	1S2473HJ
D651	50425500	1S2473

CARBON RESISTORS

All resistors are rated ±5% tolerance and ¼ watt.

R601	51814880	1.8 k ohm
R602~R609	51814460	33 ohm
R611	51814880	1.8 k ohm
R612	51814760	560 ohm
R613	51815060	10 k ohm
R614	51814980	4.7 k ohm
R615	51814820	1 k ohm
R617	51814980	4.7 k ohm
R618	51814780	680 ohm
R619	51815060	10 k ohm
R620	51814980	4.7 k ohm
R621	51815080	12 k ohm
R622	51815060	10 k ohm
R623	51815080	12 k ohm
R624	51815060	10 k ohm
R625	51814920	2.7 k ohm
R626	51815020	6.8 k ohm
R627	51815060	10 k ohm
R628	51814920	2.7 k ohm
R629	51815020	6.8 k ohm
R630	51815060	10 k ohm
R631	51814980	4.7 k ohm
R632	51815020	6.8 k ohm
R633	51815080	12 k ohm
R634	51814860	1.5 k ohm
R635	51815220	47 k ohm
R636	51815080	12 k ohm
R637	51814820	1 k ohm
R638	51814820	1 k ohm
R639	51814860	1.5 k ohm
R641	51814860	1.5 k ohm
R642	51815080	12 k ohm
R643	51814660	220 ohm
R647	51814860	1.5 k ohm
R648	51815080	12 k ohm
R649	51814620	150 ohm
R650	51814820	1 k ohm
R652	51815100	15 k ohm
R653	51815020	6.8 k ohm
R654	51814880	1.8 k ohm
R655	51814700	330 ohm
R656	51815200	39 k ohm
R657, R658	51814920	2.7 k ohm
R659	51814760	560 ohm
R660	51814920	2.7 k ohm
R661	51815020	6.8 k ohm
R662	51814700	330 ohm
R663, R664	51814920	2.7 k ohm
R665	51814760	560 ohm
R666, R667	51815020	6.8 k ohm
R668	51814880	1.8 k ohm
R669	51814700	330 ohm
R670, R671	51814920	2.7 k ohm

REF. NO.	PARTS NO.	DESCRIPTION
R672	51815180	33 k ohm
R673	51814860	1.5 k ohm
R674	51814760	560 ohm
R675	51814920	2.7 k ohm
R676	51815020	6.8 k ohm
R677	51814700	330 ohm
R678	51814920	2.7 k ohm
R679	51814760	560 ohm
R680	51814920	2.7 k ohm
R681	51814880	1.8 k ohm
R682	51814700	330 ohm
R683, R684	51814920	2.7 k ohm
R685	51814760	560 ohm
R686	51814920	2.7 k ohm
R687	51814880	1.8 k ohm
R688	51814700	330 ohm
R689, R690	51814920	2.7 k ohm
R691	51814760	560 ohm
R692	51814920	2.7 k ohm
R693	51815020	6.8 k ohm
R694	51815180	33 k ohm
R695	51814620	150 ohm
R696	51815140	22 k ohm
R697	51814880	1.8 k ohm
R698	51815180	33 k ohm
R699	51815020	6.8 k ohm
R700	51814940	3.3 k ohm
R701	51814840	1.2 k ohm
R702	51815020	6.8 k ohm
R703	51814700	330 ohm
R704	51815020	6.8 k ohm
R705, R706	51814980	4.7 k ohm
R707, R708	51815200	39 k ohm
R709	51814860	1.5 k ohm
R710	51814760	560 ohm
R711	51814940	3.3 k ohm
R712	51814960	3.9 k ohm
R713	51814880	1.8 k ohm
R714	51815140	22 k ohm
R715	51814860	1.5 k ohm
R716	51814780	680 ohm
R717	51815100	15 k ohm
R718	51814940	3.3 k ohm
R719	51815120	18 k ohm
R720	51815100	15 k ohm
R721	51814620	150 ohm
R722	51814660	220 ohm
R723	51815080	12 k ohm
R724	51815300	100 k ohm
R725	51815220	47 k ohm
R726	51814980	4.7 k ohm
R727	51815140	22 k ohm
R728	51814980	4.7 k ohm
R729	51815140	22 k ohm
R730	51814980	4.7 k ohm
R731	51815140	22 k ohm
R732~R734	51814620	150 ohm
R735	51814900	2.2 k ohm
R736	51815020	6.8 k ohm
R737	51815040	8.2 k ohm
R738	51814820	1 k ohm
R739	51814700	330 ohm
R740	51814620	150 ohm

REF. NO.	PARTS NO.	DESCRIPTION		
		CAPACITORS		
C601	51713148	Elec.	10 mfd	16V
C602~C606	51712908	Elec.	2.2 mfd	50V
C607	51713148	Elec.	10 mfd	16V
C608, C609	51712908	Elec.	2.2 mfd	50V
C610	51715730	Elec.	47 mfd	10V
C611	51715680	Elec.	22 mfd	16V
C613	51715600	Elec.	2.2 mfd	50V
C615	51715580	Elec.	0.47 mfd	50V
C616	51715690	Elec.	22 mfd	25V
C617	51713068	Elec.	4.7 mfd	35V
C618	51712988	Elec.	3.3 mfd	50V
C619	51715670	Elec.	10 mfd	50V
C620	51715690	Elec.	22 mfd	25V
C621, C622	51713188	Elec.	10 mfd	35V
C623	51712808	Elec.	0.47 mfd	50V
C624	51712908	Elec.	2.2 mfd	50V
C626	51712848	Elec.	1 mfd	50V
C627	51713568	Elec.	100 mfd	10V
C628	51713388	Elec.	33 mfd	16V
C629	51713568	Elec.	100 mfd	10V
C630	51713308	Elec.	22 mfd	35V
C631	51713188	Elec.	10 mfd	35V

2-3. POWER SUPPLY PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51688343	PCB Assy
	51677980	PCB
		TRANSISTORS
Q801	51450870	2SD313(E)
Q802, Q803	51450920	2SC1740LN(S)
Q805	51450870	2SD313(E)
Q806	51450920	2SC1740LN(S)
Q807	51451350	2SD400MP(E)
Q808	51450920	2SC1740LN(S)
		DIODES
D801~D808	51431130	1SR34-200HM
D809	51431080	RD-13EB
D810	51431130	1SR34-200HM
D811	51431290	RD-5.6EB
D812	50425540	RD-6.2EB
D813	51431130	1SR34-200HM
D814	50425540	RD-6.2EB
		RESISTORS **All resistors are rated ±5% tolerance, ¼ watt and of carbon type unless otherwise noted.**
R801~R803	51815060	10 k ohm
R807	51814900	2.2 k ohm
R808	51814980	4.7 k ohm
R809	51815020	6.8 k ohm
R810	51814900	2.2 k ohm
R811	51814980	4.7 k ohm
R812	51814900	2.2 k ohm
R816	51814820	1 k ohm
R817, R818	51815020	6.8 k ohm
R819	51800840	1.2 k ohm ½W
R820	51814640	180 ohm
R821	51815100	15 k ohm
R822	51815120	18 k ohm
R823	51815060	10 k ohm
R824	51814660	220 ohm
R826, R827	51815100	15 k ohm
R828	51814620	150 ohm
R829	51814840	1.2 k ohm
		CAPACITORS
C801	51720128	Elec. 1000 mfd 50V
C802	51720168	Elec. 2200 mfd 25V
C803	51720128	Elec. 1000 mfd 50V
C804	51720118	Elec. 1000 mfd 35V
C805	51719188	Elec. 1 mfd 50V
C806	51719818	Elec. 100 mfd 50V
C807	51720128	Elec. 1000 mfd 50V
C809	50554400	Elec. 470 mfd 16V
C810	51720108	Elec. 1000 mfd 25V
C811	51720008	Elec. 470 mfd 6.3V
C812	51719778	Elec. 100 mfd 10V
C813	51720088	Elec. 1000 mfd 10V
C814	51722440	Elec. 0.047 mfd 25V
C815, C816	51719778	Elec. 100 mfd 10V
C817	51719338	Elec. 4.7 mfd 35V
C818	51719188	Elec. 1 mfd 50V
		MISCELLANEOUS
R815	50534460	Semi-fixed, 1 k ohm-B
	50332950	Tube, Insurating
	50332910	Plate, Insurating

2-4. FILTER PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51688950	PCB Assy
	51678950	PCB
Q851	50425370	Transistor; 2SA634(L)
R851	51814620	Carbon Resistor; 150 ohm ¼W
R852	51814900	Carbon Resistor; 2.2 k ohm ¼W
R853	51814500	Carbon Resistor; 47 ohm ¼W
R854	51815060	Carbon Resistor; 10 k ohm ¼W
C851	51719790	Elec. Capacitor; 100 mfd 25V
C852	51719400	Elec. Capacitor; 10 mfd 25V

2-5. JOINT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	51688970	PCB Assy
	51678021	PCB
D817, D820	51431140	Diode, 1SR34-400HM
R954	51811820	Resistor; 15 ohm ¼W; Non-Flammable
R955	51800660	Carbon Resistor; 220 ohm ½W
C951	50559460	Capacitor; 10 mfd 50V (B.P.)
P801	51221360	Connector Plug, 12P
P802	51221290	Connector Plug, 5P

2-6. LEVER SW PCB ASSY

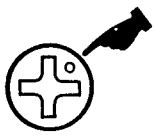
REF. NO.	PARTS NO.	DESCRIPTION
	51689000	PCB Assy
	51679000	PCB
R39, R49	51831220	Carbon Resistors; 47 k ohm ¼W
S1	51320460	Lever Switch; DPDT
S2	51320470	Lever Switch; 4PDT
S3	51320450	Lever Switch; 6P3T
S4, S5	51320410	Lever Switch; DP3T
S6	51320450	Lever Switch; 6P3T
P11	51221490	Connector Plug; 6P
P12	51221510	Connector Plug; 8P
P13	51221530	Connector Plug; 10P
P14	51221550	Connector Plug; 12P
P15	51221300	Connector Plug; 6P
P16	51221290	Connector Plug; 5P

(Continued from page 23)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 41	*55344221	Rod, Power Switch	
4 - 42	*55555610	Bracket, Power Switch	
4 - 43	51340110	Switch, POWER	U.K., EUROPE
	51340180	Switch, POWER	All except U.K., EUROPE
4 - 44	50529050	Spark Killer, 0.1 mfd + 120 ohm 400VAC	JAPAN
	50529060	Spark Killer, 0.033 mfd + 120 ohm 125V AC	U.S.A.
	50529110	Spark Killer, 0.033 mfd + 120 ohm 250VAC	CANADA
	50529080	Spark Killer, 4700 pfd 250VAC	U.K., EUROPE
	50529070	Spark Killer, 0.01 mfd + 300 ohm 400VAC	GENERAL EXPORT, AUSTRALIA
4 - 45	*55546532	Bracket, Meter	
4 - 46	51650531	Meter, Peak Level	
4 - 47	*55047100	Bracket Assy, VR	
4 - 48	*55557050	Shield, B	
4 - 49	*51688940	PCB Assy, MIC JACK	
	*51678940	PCB, MIC JACK	Part of 4 - 49
	*51814900	Carbon Res., 2.2 k ohm ¼W 5%	Part of 4 - 49
4 - 50	51240281	Jack, MIC; L/MONO	Part of 4 - 49
4 - 51	51240230	Jack, MIC; R	Part of 4 - 49
4 - 52	*55045680	Gear Assy, A	
4 - 53	*55045690	Gear Assy, Friction	
4 - 54	51502230	Var. Res., 100 k ohm - A	
4 - 55	*51688960	PCB Assy, OUTPUT VR	
	*51678960	PCB, OUTPUT VR	Part of 4 - 55
	51502240	Var. Res., 50 k ohm - A x 2	Part of 4 - 55
	*51501570	Var. Res., Semi-fixed; 100 k ohm - B	Part of 4 - 55
	51815160	Carbon Res., 27 k ohm ¼W 5%	Part of 4 - 55
4 - 56	55346780	Cap, VR	
4 - 57	51502350	Var. Res., 250 k ohm - B	
4 - 58	51502340	Var. Res., 50 k ohm - B	
4 - 59	*51688990	PCB Assy, LED	
	*51678990	PCB, LED	Part of 4 - 59
	51430470	LED	Part of 4 - 59
4 - 60	*55240820	Spring, LED; B	
4 - 61	55047130	Knob, Push Switch	
4 - 62	51340890	Switch, Push; 4PDT	
4 - 63	*55556460	Bracket, Lever Switch	
4 - 64	*51689000	PCB Assy, SWITCH	
4 - 65	*55557060	Shield, C	
4 - 66	*51221700	Connector Socket, 8P	
4 - 67	*51221740	Connector Socket, 12P	
4 - 68	*51221670	Connector Socket, 5P	
4 - 69	*51221720	Connector Socket, 10P	
4 - 70	*55555652	Bracket, PCB	
4 - 71	*51689731	PCB Assy, FUSE	
	*51420870	Holder, Fuse	EUROPE, U.K., AUSTRALIA
4 - 72	*50411400	Fuse, 250V 1AT	EUROPE, U.K., AUSTRALIA
4 - 73	*50421880	Fuse, 250V 1.6AT	EUROPE, U.K., AUSTRALIA
4 - 74	*50411380	Fuse, 250V 500mA	EUROPE, U.K., AUSTRALIA

ASSEMBLING HARDWARE CODING LIST

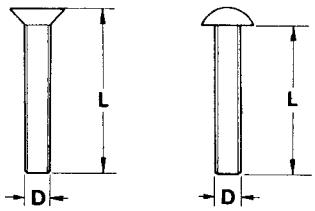
All screws conform to ISO standards, and have crossrecessed heads, unless otherwise noted. ISO screws have the head inscribed with a point as in the figure to the right.



FOR EXAMPLE:

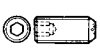
B M 3 x 6

- B — Nomenclature
- M — Metric System
- 3 — Diameter in mm (D) *
- 6 — Length in mm (L)



* Inner dia. for washers and nuts

	Code	Name	Type
MACHINE SCREW	**R**	Round Head Screw	
	P	Pan Head Screw	
	T	Stove Head Screw (Truss)	
	B	Binding Head Screw	
	F	Flat Countersunk Head Screw	
	O	Oval Countersunk Head Screw	
WOOD SCREW	**RW**	Round Head Wood Screw	
TAPTITE SCREW	**PTT**	Pan Head Taptite Screw	
	WTT	Washer Head Taptite Screw	
SEMS SCREW	**BSA**	Binding Head SEMS Screw(A Type)	
	BSB	Binding Head SEMS Screw(B Type)	
	BSF	Binding Head SEMS Screw(F Type)	
	PSA	Pan Head SEMS Screw(A Type)	
	PSB	Pan Head SEMS Screw(B Type)	

	Code	Name	Type
TAPPING SCREW	**BTA**	Binding Head Tapping Screw(A Type)	
	BTB	Binding Head Tapping Screw(B Type)	
	RTA	Round Head Tapping Screw(A Type)	
	RTB	Round Head Tapping Screw(B Type)	
SETSCREW	**SF**	Hex Socket Setscrew(Flat Point)	
	SC	Hex Socket Setscrew(Cup Point)	
	SS	Slotted Socket Setscrew(Flat Point)	
WASHER	**E**	E-Ring (Retaining Washer)	
	W	Flat Washer (Plain)	
	SW	Lock Washer (Spring)	
	LWI	Lock Washer (Internal Teeth)	
	LWE	Lock Washer (External Teeth)	
	TW	Trim Washer (Countersunk)	
NUT	**N**	Hex Nut	

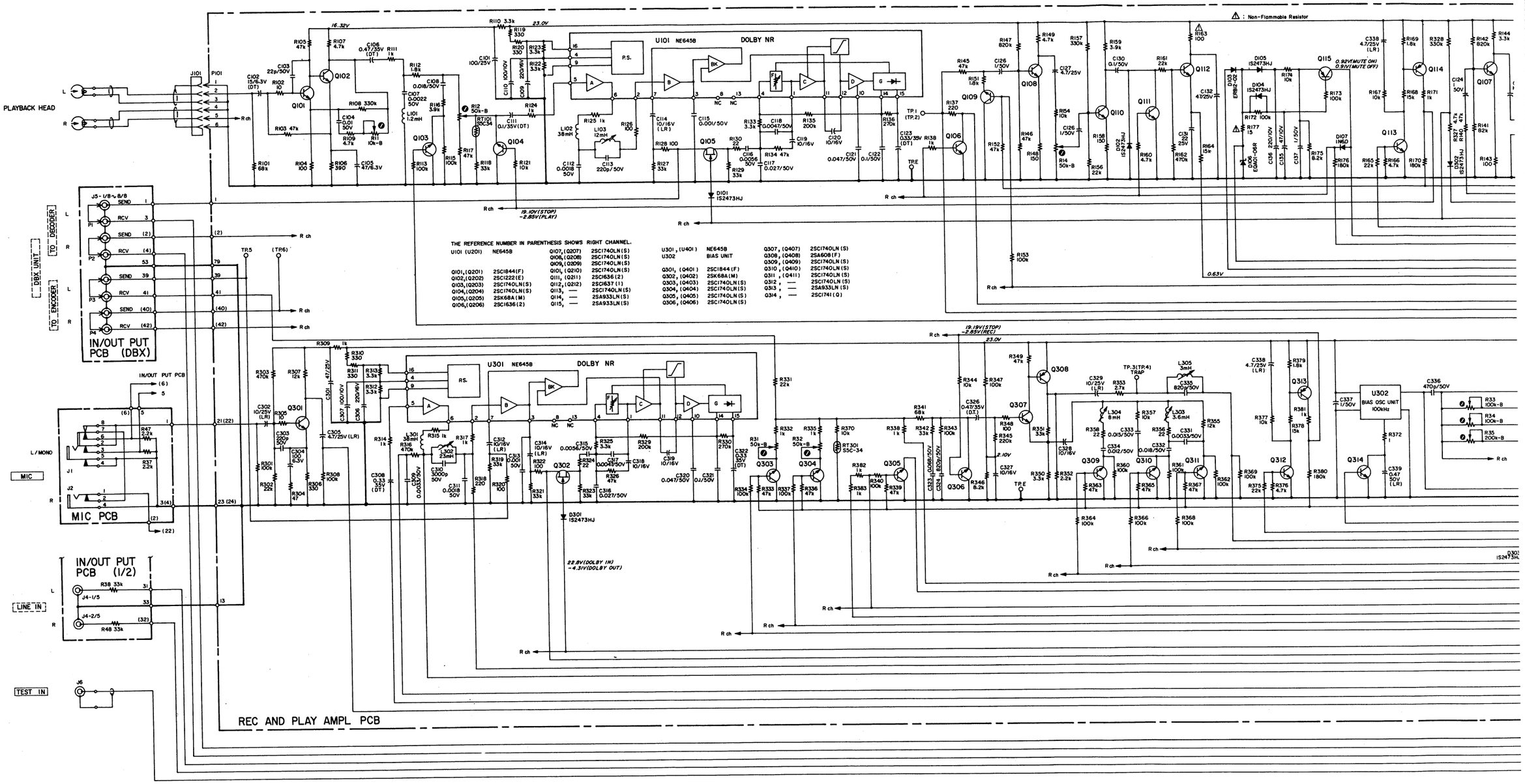
C-3

TEAC®

TEAC CORPORATION	3-7-3 NAKA-CHO MUSASHINO TOKYO PHONE (0422) 53-1111
TEAC CORPORATION OF AMERICA	7733 TELEGRAPH ROAD MONTEBELLO CALIFORNIA 90640 PHONE (213) 726-0303
TEAC AUSTRALIA PTY., LTD.	165-167 GLADSTONE STREET SOUTH MELBOURNE VICTORIA 3205 PHONE 699-60

PRINTED IN JAPAN 0479 SK 2.0 D-313

TEAC SCHEMATIC DIAGRAM (AMPLIFIER)



NOTES.
1. ALL RESISTORS ARE 1/4 WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (k=1,000 OHMS,M=1,000,000 OHMS).
2. ALL CAPACITOR VALUES ARE IN MICROFARADS (p=PICOFARADS)
3. SCHEMATIC DIAGRAM SHOWN FOR LEFT CHANNEL EXCEPT FOR SOME OF THE COMPONENTS.
4. DC VOLTAGES WERE MEASURES DURING RECORD PAUSE MODE UNLESS OTHERWISE NOTED.

VOLTAGE CHART

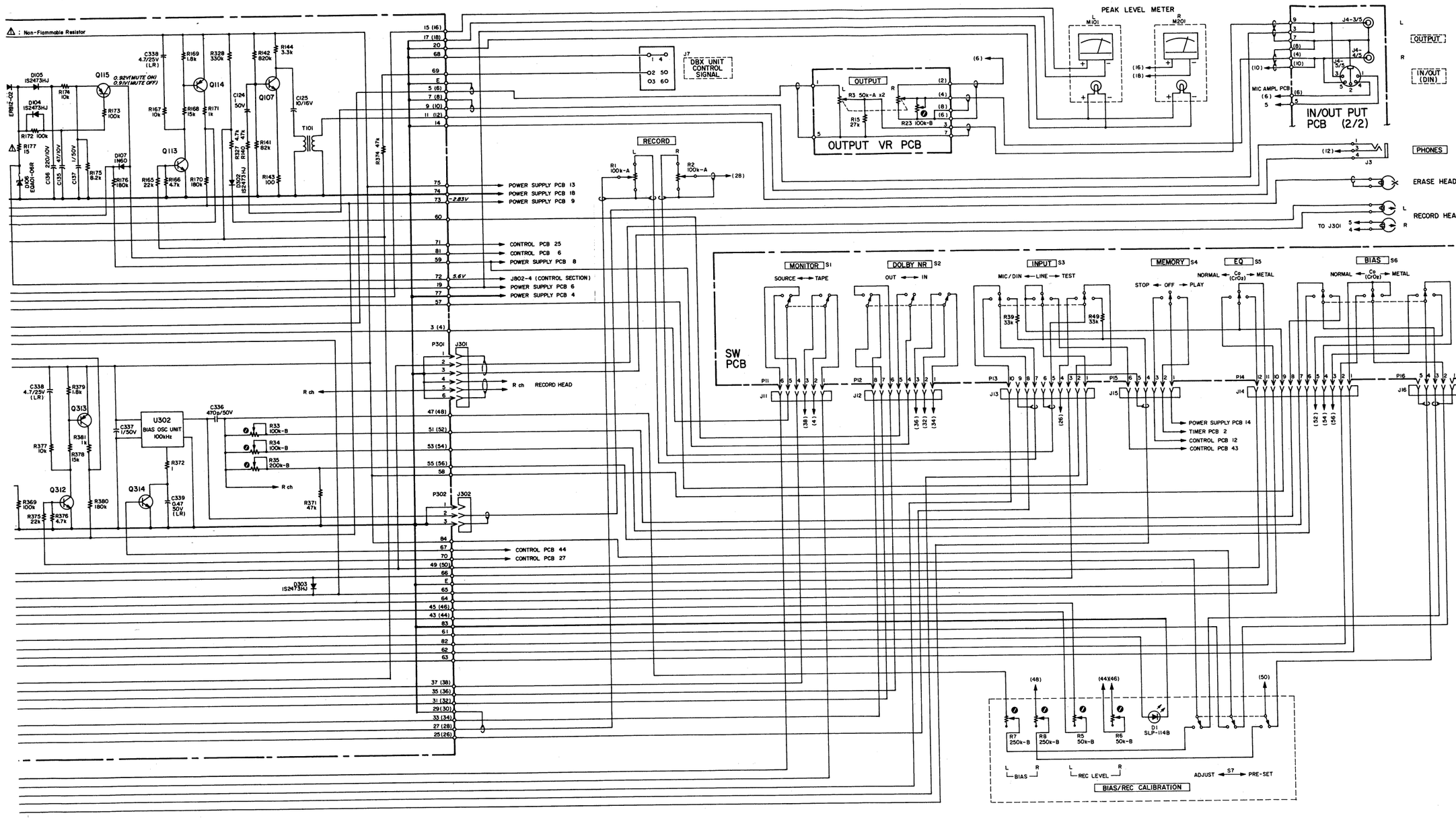
REC AND PLAY AMPL. PCB

	Base	Collector	Emitter
Q101	0.613V	1.27V	0.035V
Q102	1.27V	8.38V	0.65V
Q108	0.97V	12.43V	0.34V
Q110	1.24V	7.69V	0.59V
Q112	4.50V	23.0V	8.67V
Q113		19.10V(STOP) −2.85V(PLAY)	

	Base	Collector	Emitter
Q301	0.93V	9.64V	0.338V
Q303	0.65V(METAL) −2.72V(NORMAL)		
Q307	2.03V	22.4V	1.55V
Q308	22.4V	11.22V	23.0V
Q314	0.78V(REC)	1.15V(STOP) 0.02V(REC)	

U101

Pin No.	1	2	3	
Voltage	6.55V	6.67V	7.03V	6.6
Pin No.	9	10	11	
Voltage	0V	6.61V	6.82V	6.6



U101

Pin No.	1	2	3	4	5	6	7	8
Voltage	6.55V	6.67V	7.03V	6.60V	6.52V	6.72V	5.87V	(N.C.)
Pin No.	9	10	11	12	13	14	15	16
Voltage	0V	6.61V	6.82V	6.60V	(N.C.)	6.61V	6.43V	12.67V

U301

Pin No.	1	2	3	4	5	6	7	8
Voltage	6.31V	6.52V	6.93V	6.42V	6.34V	6.55V	6.22V	(N.C.)
Pin No.	9	10	11	12	13	14	15	16
Voltage	0V	6.43V	6.21V	6.42V	(N.C.)	6.44V	6.27V	12.39V

TEAC SCHEMATIC DIAGRAM (TAPE TRANSPORT)

CONTROL PCB

KEY UNIT

REMOTE CONTROL PCB

TIMER PCB

FILTER PCB

POWER SUPPLY PCB

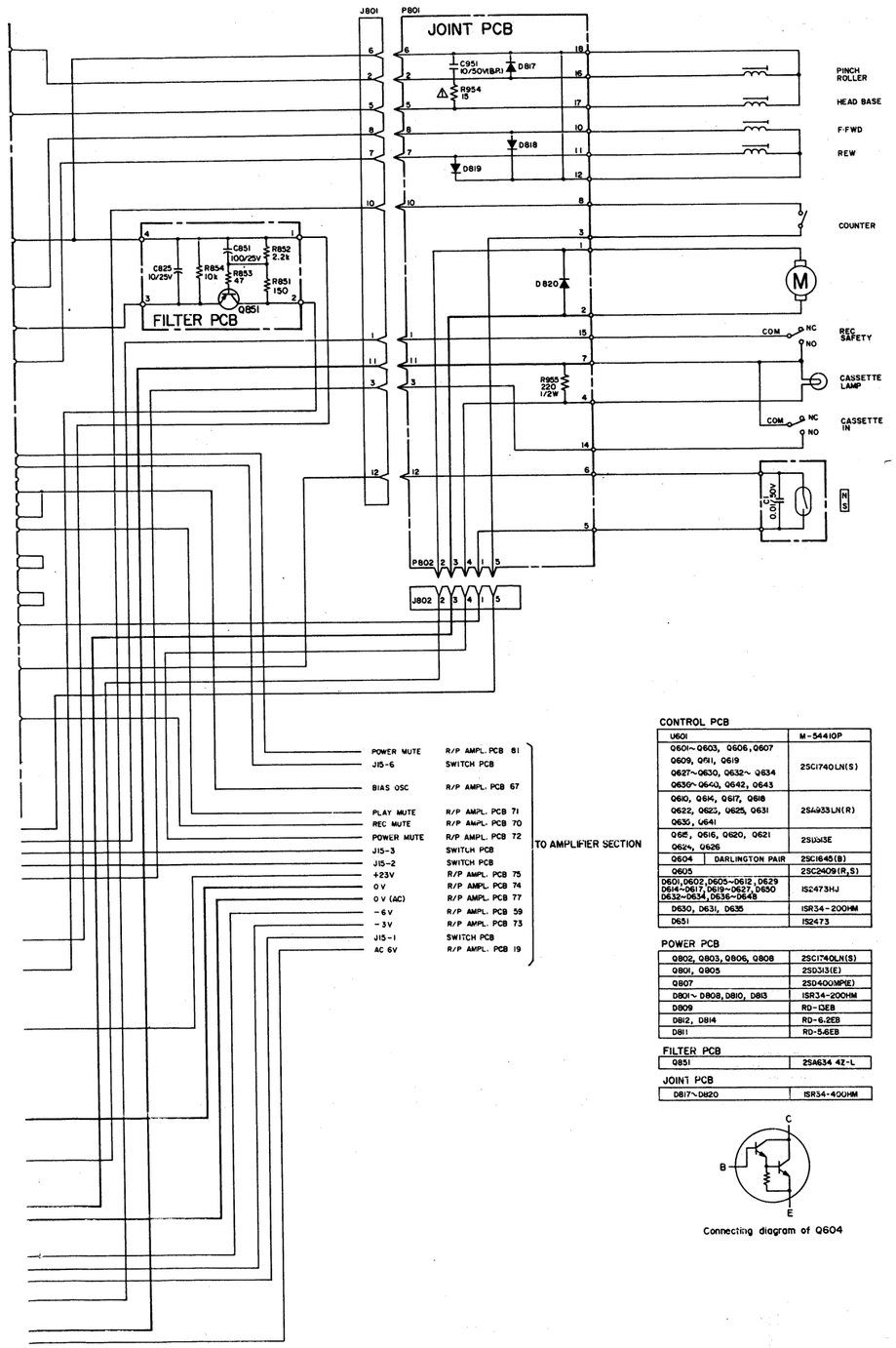
FUSE PCB

EUROPE, U.K.

AUSTRALIA

GENERAL EXPORT

NOTES:
1. ALL
RESI
2. ALL



CONTROL PCB	
U601	M-54410P
Q601~Q603, Q606, Q607 Q609, Q611, Q619 Q627~Q630, Q632~Q634 Q636~Q640, Q642, Q643	2SC1740LN(S)
Q610, Q614, Q617, Q618 Q622, Q623, Q625, Q631 Q635, Q641	2SA933LN(R)
Q615, Q616, Q620, Q621 Q624, Q626	2SD313E
Q604 DARLINGTON PAIR	2SC1645(B)
Q605	2SC2409(R,S)
D601, D602, D605~D612, D629 D614~D617, D619~D627, D650 D632~D634, D636~D648	IS2473HJ
D630, D631, D635	ISR34-200HM
D651	IS2473

POWER PCB	
Q802, Q803, Q806, Q808	2SC1740LN(S)
Q801, Q805	2SD313(E)
Q807	2SD400MP(E)
D801~D808, D810, D813	ISR34-200HM
D809	RD-12EB
D812, D814	RD-6.2EB
D811	RD-5.6EB

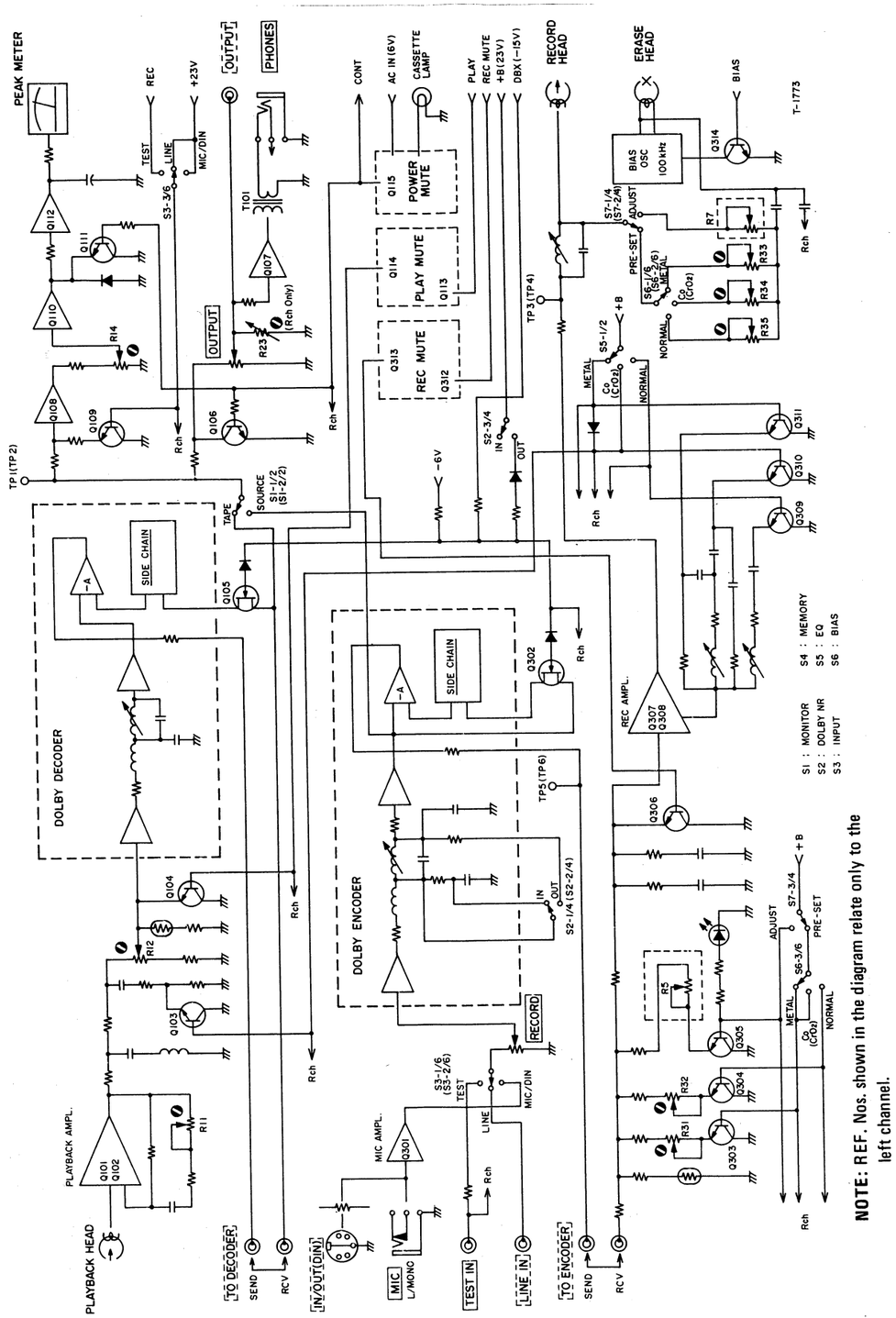
FILTER PCB	
Q851	2SA634 4Z-L

JOINT PCB	
D817~D820	ISR34-400HM

Connecting diagram of Q604

NOTES:-
1. ALL RESISTORS ARE 1/4 WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (k=1,000 OHMS, M=1,000,000 OHMS).
2. ALL CAPACITOR VALUES ARE IN MICROFARADS (p=PICOFARADS)

BLOCK DIAGRAM



NOTE: REF. Nos. shown in the diagram relate only to the left channel.

TEAC TECHNICAL INFORMATION

NO. 793/008

C-3 SERVICE MANUAL UPDATE

DATE Sep. 26, 1979

There are some errors in the C-3 SERVICE MANUAL (TEAC P/N 5704000000), page 9. This information is important and quick amendment to your manual is required.

INCORRECT

RECORDING PERFORMANCE

ITEM	CONNECTION	INPUT	ADJUST (or CHECK)	OUTPUT	REMARKS
1. Bias trap	Connect AC voltmeter between TP3 (TP4) and TP E	No signal recording			Set in REC/PAUSE
2. Record bias	Fig. 4-3	Test tone 400 Hz and 10 kHz in turn/−42 dB	R33/R43 R34/R44 R35/R45	Fig.4-10	Co (CrO_2) METAL NORMAL
3. Record level	Fig. 4-3	Test tone 400 Hz/−12 dB (195 mV)	R31/R41 .. R32/R42 .. Check	−8 dB (308 mV) −8 dB ±1.5 dB (259 mV to 367 mV)	Co (CrO_2) NORMAL METAL
4. Distortion	Fig. 4-3	Test tone, 400 Hz/−12 dB (195 mV)	Check	2.0% or less	Check w/3 EQ/BIAS modes
5. Frequency response	Fig. 4-3	Test tone required w/spec./−42 dB (6.15 mV)	L303/L403 For Co (CrO_2) L304/L404	Reference 400 Hz: 40 Hz: −2, −4 dB 10 kHz: −2, −2 dB 20 kHz: −2, −2 dB	For NORMAL, Co (CrO_2) For METAL

C-3 SM, page 9

CORRECT

2. Record bias ····· R33/R43 ····· METAL
R34/R44 ····· Co(CrO_2)
R35/R45 ····· NORMAL

3. Record level····· R31/R41 ···· −8 dB ···· METAL
Co(CrO_2)
R32/R42 ···· −8 dB ···· NORMAL